ألبوم صور فوتوغرافية

بواسطة مستخدم Windows

Question No. 16

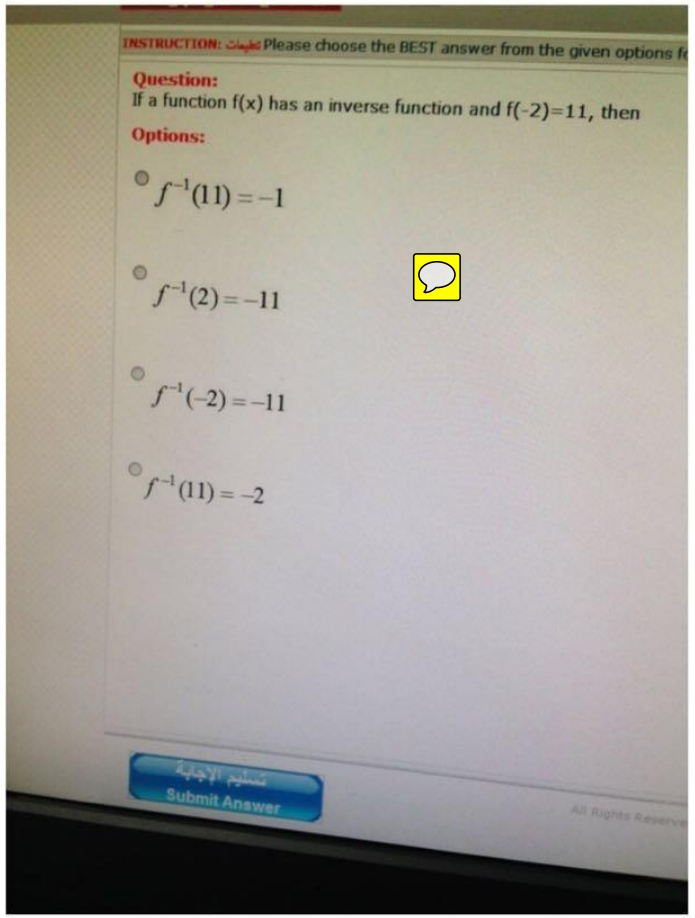
The function $f(x) = x^2 + 6x + 8$ is equivalent to

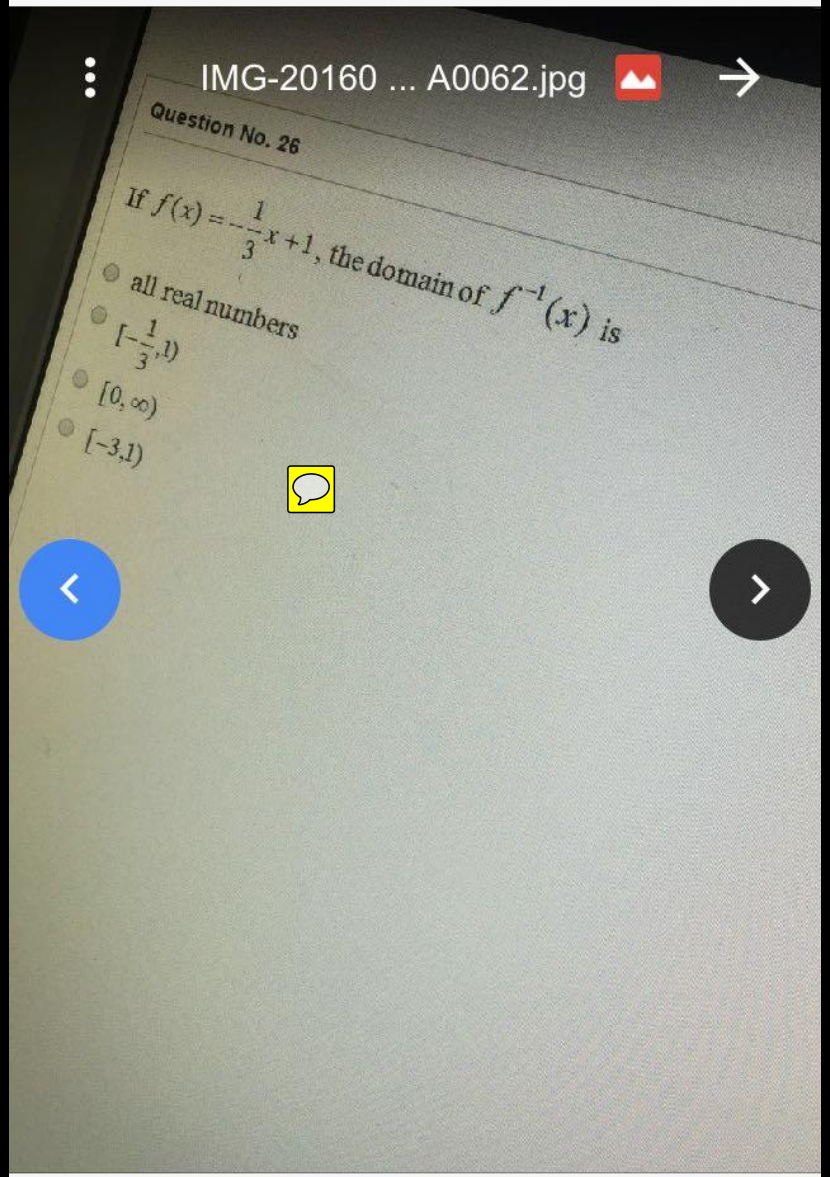
- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

Question No. 9

If $f(x)=(x-1)^2$ then $f(a^3)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^6-2a^3+1
- a^6+a+2





MKCL OES

Question No. 1

Solve $6 \leq x - 2 < 14$

- $8 \leq x < 16$
- $6 \leq x < 16$
- $8 \leq x < 20$
- $4 \leq x < 12$

Save & Next

uestion No. 4

he solution set of the following equation: $|\sqrt{3}x - \sqrt{3}| = \sqrt{3}$ is

- $\{0, 2\}$
- $\{-2, 0\}$
- $\{-1+\sqrt{3}, 1+\sqrt{3}\}$
- $\{-1+\sqrt{3}, -1-\sqrt{3}\}$

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MKCL OES

Question No. 2

Write $x < -4$ or $x \geq 4$ in interval notation

- $(-\infty, -4] \cup (4, \infty)$
- $(-\infty, -4) \cup [4, \infty)$
- $(-4, 4]$
- $[-4, 4)$

Save & Next जतन व पुढील

The solution set of the following equation: $2-|10x-\sqrt{2}|=3$ is

- $\left\{\frac{2}{5}\right\}$
- $\{\phi\}$
- $\frac{4}{5}$
- ϕ

Save & Next

Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next

Question No. 8

The domain of $f(x)=\frac{1}{\sqrt{4-x^2}}$ is

- $(-\infty,-2)\cup(-2,\infty)$
- $(-2,2)$
- $(-\infty,2)\cup(2,\infty)$
- $(-\infty,-2)\cup(2,\infty)$

Save & Next محفظ والتالي

MKCL OES

Question No. 10

The slopes of two parallel lines are

- 0
- equal
- different
- undefined

Save & Next

Question No. 20

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

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Maths_Sem

Question No. 21

If x-4 is a factor of the polynomial f(x) then

- $f(4) = 0$
- $f(0) = 4$
- $f(-4) = 0$
- $f(0) = -4$

MKCL OES

Question No. 25

The inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{5x-4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{5x+4}{x-1}, x\neq 1.$

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Question No. 23

A function $f(x)$ is one-to-one if

- $f(a) = f(b) \Rightarrow a \neq b$
- $a = b \Rightarrow f(a) \neq f(b)$
- $a \neq b \Rightarrow f(a) = f(b)$
- $a \neq b \Rightarrow f(a) \neq f(b)$

Question No. 24

Let f be the one-to-one function defined by this set of ordered pairs {(-3,2), (
Then $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

n No. 25

inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{x+4}{3x-1}, x\neq\frac{1}{3}.$
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et f be the one-to-one function defined by this set of ordered pairs {(-3,2), (4,5),(7,4),(10,19)}. hen $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

Question No. 22

If the remainder of the division of $f(x)$ by $x+a$ is zero then

- a is a factor of the polynomial $f(x)$
- x is a factor of the polynomial $f(x)$
- $x-a$ is a factor of the polynomial $f(x)$
- $x+a$ is a factor of the polynomial $f(x)$

Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

Question No. 19

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-2) = -5$
- $f(-5) = 2$
- $f(-5) = -2$
- $f(2) = -5$

Question No. 23

The inverse of F = { (-3,3), (0,0), (4,2), (1,5) } is

- G = { (3,3), (0,0), (-4,2), (-1,5) }
- G = { (-3,-3), (0,0), (4,-2), (1,-5) }
- G = { (3,-3), (0,0), (2,4), (5,1) }
- G = { (3,3), (0,0), (2,4), (1,5) }

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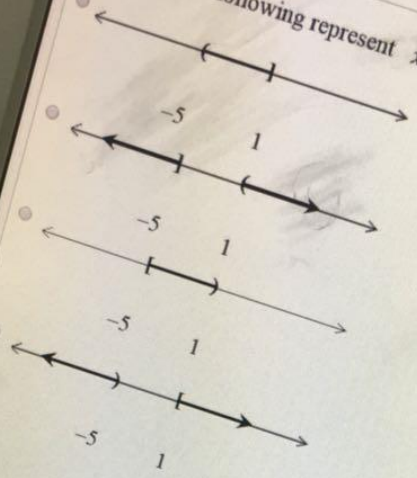
LE171

Question No. 25

The inverse of $f(x)=\frac{1}{3x+1}, x\neq\frac{-1}{3}$, is

- $f^{-1}(x)=\frac{x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x-1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{3x}, x\neq 0.$

Which of the following represent $x \leq -5$ or $x > 1$



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Question No. 7

The function $f(x)$ is increasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) \leq f(x_2)$,
- if $x_1 > x_2$, then $f(x_1) < f(x_2)$,
- if $x_1 < x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$,

Maths_Sem1_Quiz-2_2016

Question No. 24

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $(-\frac{1}{3}, 1)$
- $[0, \infty)$
- $(-3, 1)$

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Question No. 12

Find $(f \circ g)(x)$, where $f(x) = x^2 + x$, $g(x) = \sqrt{x-1}$.

- $2x - 1$
- $x - 1 + \sqrt{x}$
- $x - 1 + \sqrt{x-1}$
- $\sqrt{x^2 + x - 1}$

Save & Next

Question No. 19

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-2) = -5$
- $f(-5) = 2$
- $f(-5) = -2$
- $f(2) = -5$

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The inverse of $f(x)=\frac{1}{3x+1}, x\neq\frac{-1}{3}$, is

- $f^{-1}(x)=\frac{-x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x-1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{x}, x\neq 0.$

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Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next

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- $\{0, 2\}$
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- $\{-1+\sqrt{3}, 1+\sqrt{3}\}$
- $\{-1+\sqrt{3}, -1-\sqrt{3}\}$

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Question No. 16

The function $f(x) = 2(x-3)^2 - 3$ can be written a

- $f(x) = 2x^2 - 12x + 15$
- $f(x) = 2x^2 - 12x + 6$
- $f(x) = 2x^2 - 12x - 21$
- $f(x) = 2x^2 - 6x + 15$

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Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next जतन व पुढील

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- $a = b \Rightarrow f(a) \neq f(b)$
- $a \neq b \Rightarrow f(a) = f(b)$
- $a \neq b \Rightarrow f(a) \neq f(b)$

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Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

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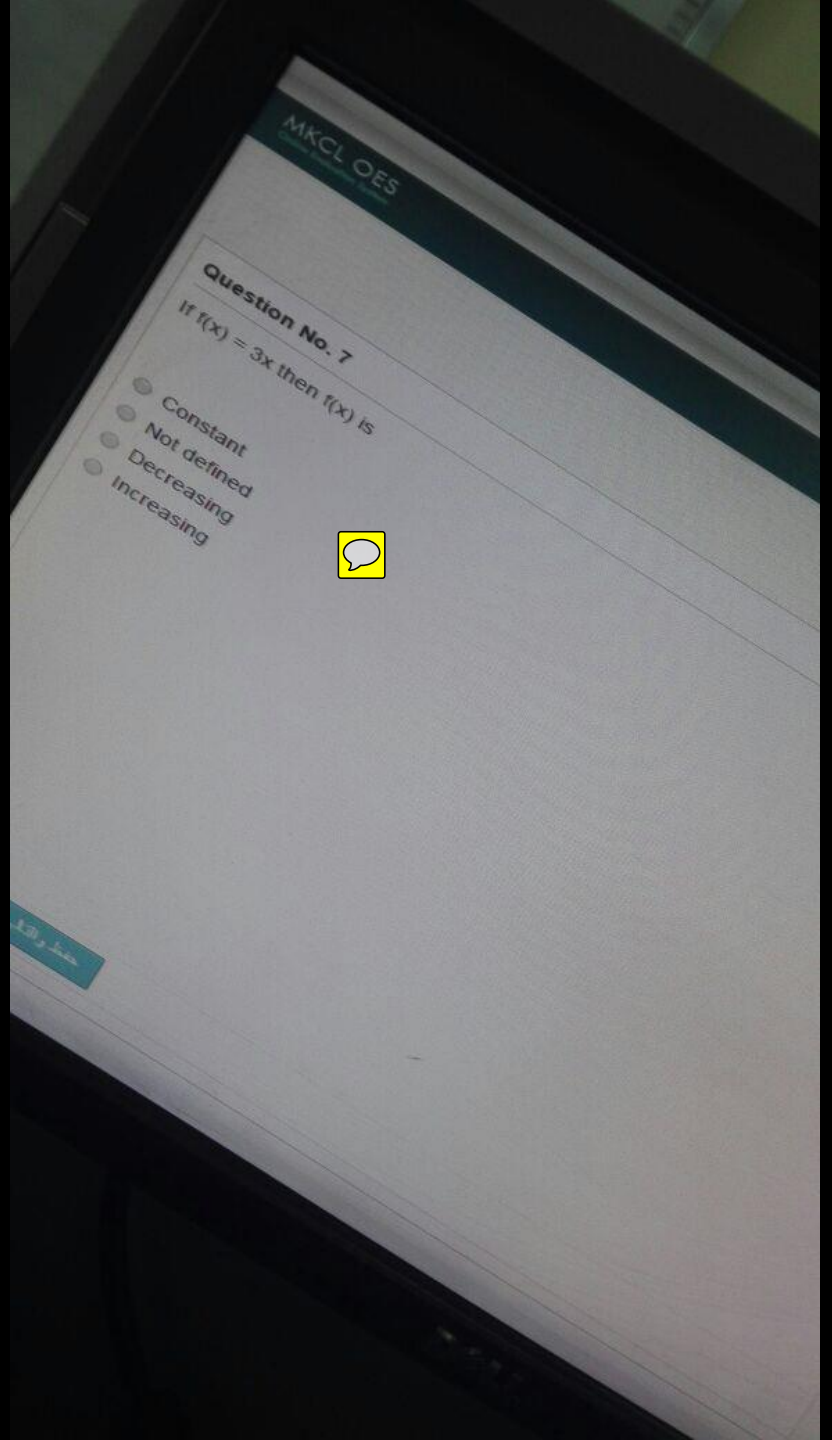
MKCL OES
Question No. 7
If f(x) = 3x then f(x) is
Constant
Not defined
Decreasing
Increasing

Question No. 6

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+8a+4$
- a^4+2a^2-1
- a^2+2a-1
- $3a^2+2a-1$

Save & Next जतन व पुढील

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the quotient of $f(x)$ and $g(x)$.

- $\left(\frac{f}{g}\right)(x)=\frac{3x+5}{4x-2}$
- $\left(\frac{f}{g}\right)(x)=\frac{4x-2}{3x+5}$
- $\left(\frac{f}{g}\right)(x)=\frac{3}{4(x-2)(x+5)}$
- $\left(\frac{f}{g}\right)(x)=\frac{3x+15}{4x-8}$

Question No. 2

Solve $-3(x+4)+2x<6$

- $(-\infty,-18)$
- $(18,\infty]$
- $(-\infty,-18]$
- $(-18,\infty)$

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Math

Question No. 11

The slope of the vertical line that passes through the point (3,2) is

- 3
- 0
- 2
- undefined

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Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4}, 4\right)$
- $\left(-4, \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4, \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4}, \infty\right)$

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Maths_Sem1_Qu

Question No. 15

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its grap

- $f(x) = -x^2 - 8x - 20$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -x^2 + 4x - 4$

Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

INSTRUCTION: Please choose the BEST answer from the given opt

Question:

If (x+1) is a factor of the polynomial f(x) then

Options:

- f(-1)=0
- f(0)=-1
- f(1)=0
- f(0)=1

Submit Answer

The quotient of the division $\frac{x^2-1}{x-4}$ is:

Options:

- $x^2+4x+16$
- $x^2+4x+13$
- $x^2+4x+15$
- $x^2+4x+14$

Question:

The axis of the graph of $f(x) = x^2 - x + 1$ is

Options:

- $y = \frac{-1}{2}$
- $x = \frac{1}{2}$
- $y = \frac{1}{2}$
- $x = \frac{-1}{2}$

INSTRUCTIONS: Please choose the BEST answer from the given op

Question:

Which of the following functions is not one to one

Options:

- $f(x) = 8 + 16x$
- $f(x) = x$
- $f(x) = -2x + 5$
- $f(x) = \sqrt{81 - x^2}$

Question No. 7

If $f(x) = -\sqrt{2}x$ then $f(x)$ is

- decreasing
- increasing
- constant
- not defined

The solution set of the following equation: $2-|10x-\sqrt{2}|=3$ is

- $\left\{\frac{2}{5}\right\}$
- $\{\phi\}$
- $\frac{4}{5}$
- ϕ

Save & Next

Question No. 13

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Determine the domain of the sum of $f(x)$ and $g(x)$.

- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$
- $x \in (-5, 2)$

Save & Next

Question No. 22

If the remainder of the division of $f(x)$ by $x+a$ is zero then

- a is a factor of the polynomial $f(x)$
- x is a factor of the polynomial $f(x)$
- $x-a$ is a factor of the polynomial $f(x)$
- $x+a$ is a factor of the polynomial $f(x)$

Question No. 24

Let f be the one-to-one function defined by this set of ordered pairs {(-3,2), (
Then $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

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- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

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Question No. 25

The inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{5x-4}{3x-1}, x\neq\frac{1}{3}.$
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Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

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Question No. 3

The solution of $\frac{3x+4}{2x-1} \leq 0$ is .....

- $(-\infty, -\frac{4}{3}] \cup (\frac{1}{2}, \infty)$
- $[-\frac{4}{3}, \frac{1}{2})$
- $(-\frac{4}{3}, \frac{1}{2})$
- $(-\infty, -\frac{4}{3}) \cup (\frac{1}{2}, \infty)$

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Question No. 20

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

The Solution set of $|2x| - 18 > -12$ is

- $(-\infty, \infty)$
- $\emptyset$
- (-3,3)
- $(-\infty, -3) \cup (3, \infty)$

Question No. 8

The range of the relation $y \leq x - 1$ is

- $[0, \infty)$
- $(4, \infty)$
- $(-\infty, \infty)$
- $[-4, \infty)$

Question No. 8

The range of the relation $y \leq x - 1$ is

- $[0, \infty)$
- $(4, \infty)$
- $(-\infty, \infty)$
- $[-4, \infty)$

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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Question No. 12

Find $f(x)-g(x)$, if $f(x)=\frac{8x-5}{4}$, $g(x)=\frac{1}{x}$.

- $\frac{8x^2-5x+4}{4x}$
- $\frac{8x-5}{4-x}$
- $\frac{8x^2-5x-1}{4x}$
- $\frac{8x^2-5x-4}{4x}$

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Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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on No. 10

he equation of the given line is

- y= -2x + 3
- y = 2x - 3
- y = -2x - 1
- y = 2x + 1

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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Question No. 9

Give the x-intercept of the line $3y - 2x + 6 = 0$

- -2
- -3
- 2
- 3

MKCL OES

Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4,5)$
- $(-5,4)$
- $(-\infty,-5)\ \mathrm{U}\ (4,\infty)$
- $(-\infty,-4)\ \mathrm{U}\ (5,\infty)$

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stion No. 2

Determine the solution set of the following inequality

$$-4 - x < -x$$

- $S = (4, \infty)$
- $S = (-\infty, -4)$
- $S = \phi$
- $S = (-\infty, \infty)$

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Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4,5)$
- $(-5,4)$
- $(-\infty,-5)\ \mathrm{U}\ (4,\infty)$
- $(-\infty,-4)\ \mathrm{U}\ (5,\infty)$

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Question No. 8

The range of the relation $y \leq x - 1$ is

- $[0, \infty)$
- $(4, \infty)$
- $(-\infty, \infty)$
- $[-4, \infty)$

MKCL OES

Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4,5)$
- $(-5,4)$
- $(-\infty,-5)\ \mathrm{U}\ (4,\infty)$
- $(-\infty,-4)\ \mathrm{U}\ (5,\infty)$

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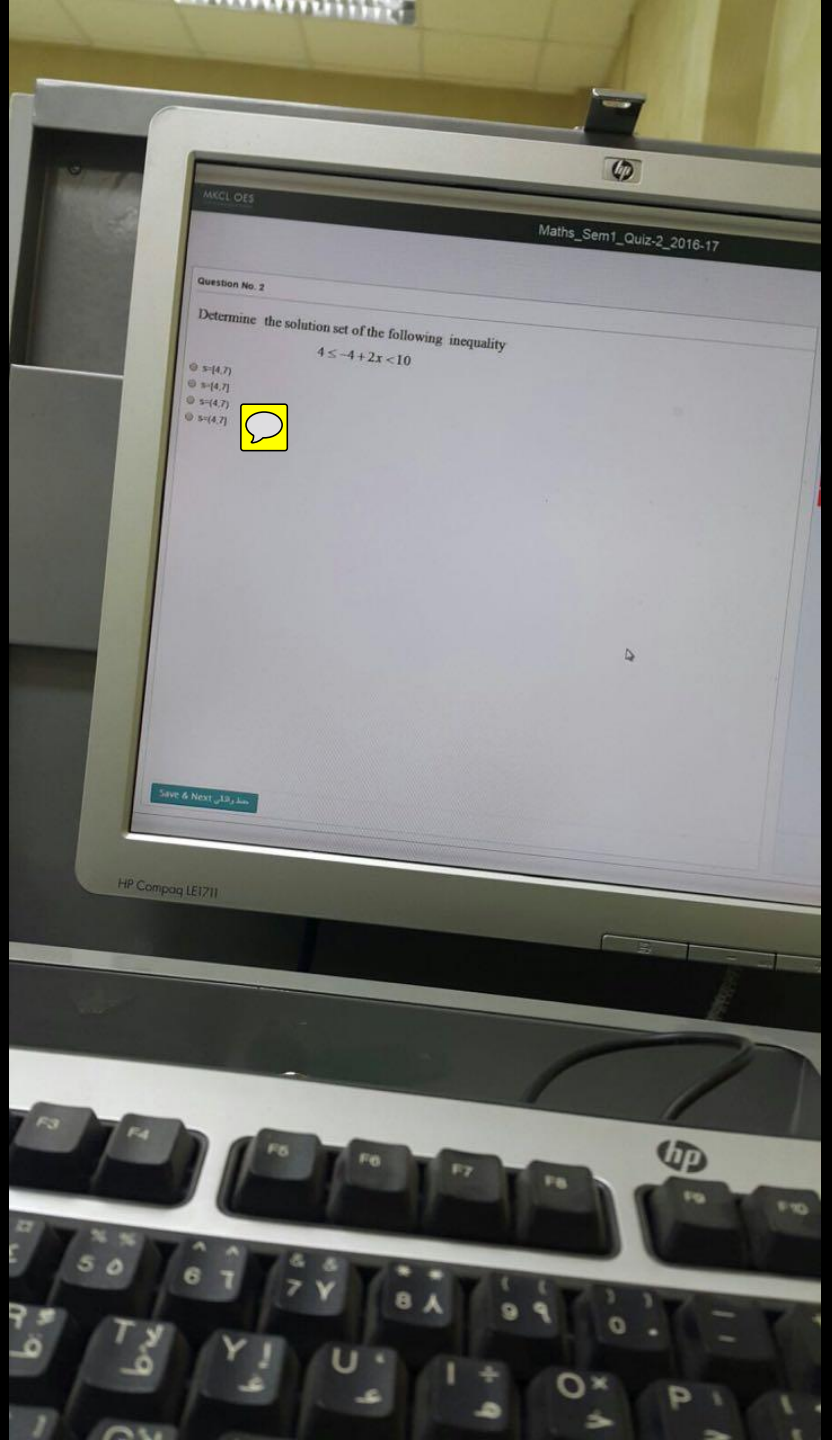
MKCL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 2
Determine the solution set of the following inequality
$4 \leq -4 + 2x < 10$
S=(4,7)
S=[4,7]
S=(4,7)
S=(4,7]
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HP Compaq LE1711

Question No. 20

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

Question No. 11

Which of the following is a vertical line:

- $x = -2$
- $5y - \frac{1}{2}x + 1 = 0$
- $y = \frac{1}{2}$
- $3y - x = 0$

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

Question No. 25

The inverse of $f(x) = 3x + 2$ is

- $f^{-1}(x) = \frac{1}{3}(x + 2)$
- $f^{-1}(x) = -\frac{1}{3}(x + 2)$
- $f^{-1}(x) = -\frac{1}{3}(x - 2)$
- $f^{-1}(x) = \frac{1}{3}(x - 2)$

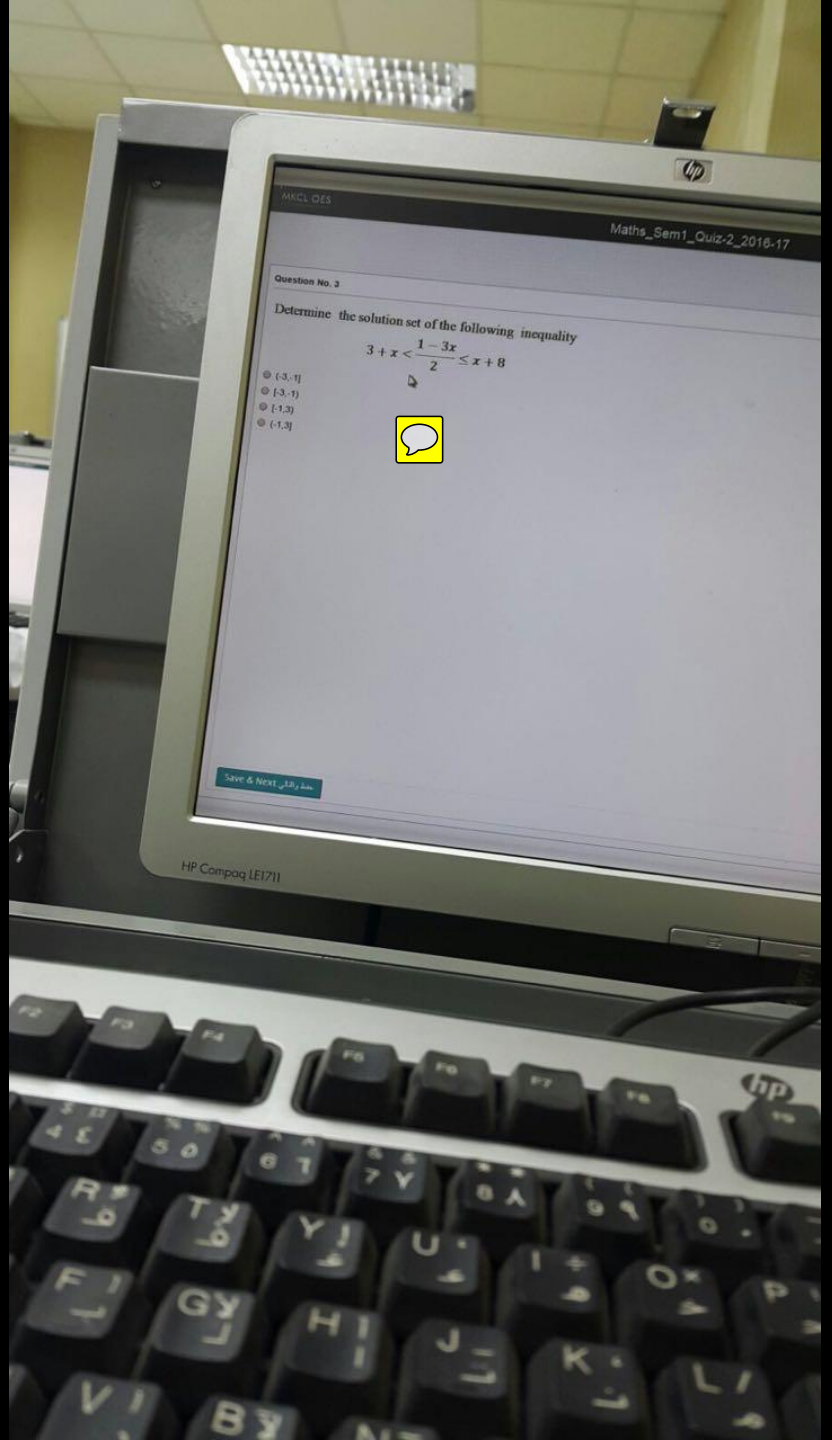
Save & Next

Question No. 2

Solve $-3(x+4)+2x<6$

- $(18,\infty]$
- $(-\infty,-18]$
- $(-\infty,-18)$
- $(-18,\infty)$

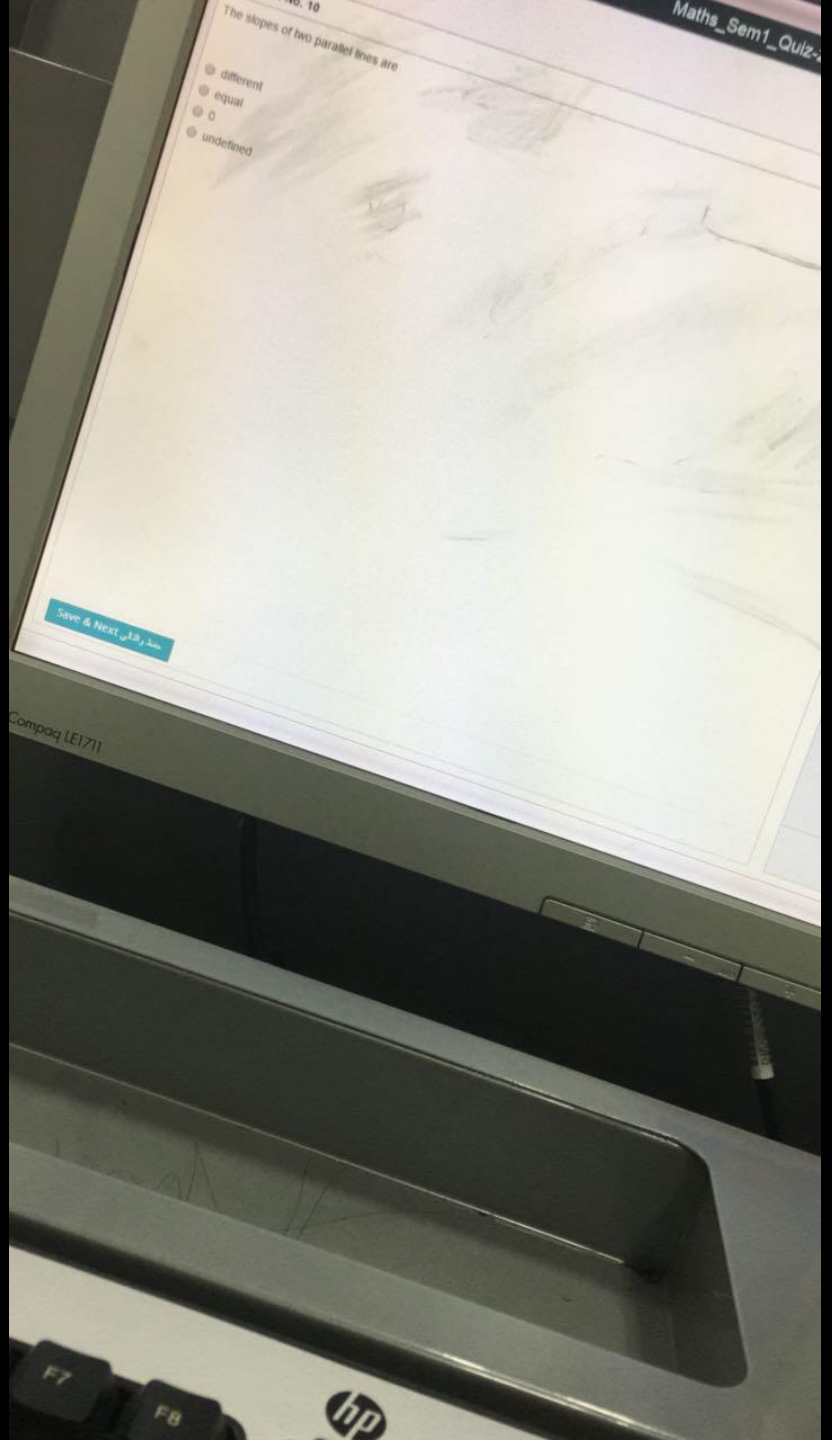
Save & Next حفظ والتالي


MKCL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 3
Determine the solution set of the following inequality
$3 + x < \frac{1-3x}{2} \leq x + 8$
(-3,-1]
[-3,-1)
[-1,3)
(-1,3]
Save & Next
HP Compaq LE1711

stion No. 14

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Determine the domain of the quotient of $f(x)$ and $g(x)$.

- $x \in (-\infty, 2) \cup (2, \infty)$
- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (-5, \infty)$


Maths_Sem1_Quiz-
The slopes of two parallel lines are
different
equal
0
undefined
Save & Next
Compaq LE1711
F7
F8

MKCL QES

Question No. 16

The axis of the graph of $f(x) = x^2 - x + 1$ is

- $y = \frac{-1}{2}$
- $x = \frac{-1}{2}$
- $y = \frac{1}{2}$
- $x = \frac{1}{2}$

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MKCL OES

Math

Question No. 23

The domain of the inverse of F = { (-5,2), (1,0), (4,12), (-1,3)} is

- D = { -5, 1, 4, -1 }
- D = { 3, 0, 4, 12 }
- D = { 5, 3, 1, 0 }
- D = { 2, 0, 12, 3 }

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Question No. 15

What is the equivalent equation of $x^2 - 6x + 2 = 0$ by completing the square?

- $(x-6)^2 + 2 = 0$
- $(x-3)^2 - 11 = 0$
- $(x-3)^2 - 7 = 0$
- $(x+3)^2 - 11 = 0$

Save & Next

MKCL OES

Question No. 20

If 'a' is a real number then the remainder of the divisi
$(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 5
- a + 2
- a + 4
- a + 3

Save & Next

MKCL OES

Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next जतन व पुढील

The Solution set of $|2x| - 18 > -12$ is

- $(-\infty, \infty)$
- $\emptyset$
- (-3,3)
- $(-\infty, -3) \cup (3, \infty)$

MKCL OES

Maths_S

Question No. 4

The solution set of the following equation: $|16-5x|-2=3$ is

- $\left\{\frac{4}{5},\frac{8}{5}\right\}$
- ϕ
- $\{4,7\}$
- $\left\{\frac{11}{5},\frac{21}{5}\right\}$

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Question No. 20

The quotient of the division $\frac{x^3-5}{x-3}$ is:

- x^2+3x+8
- x^2+3x+9
- x^2+3x+7
- x^2+3x+6

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HP LE1901w

Question No. 7

If $f(x)=(x-1)^2$ then $f(a^3)=$

- a^6+a+2
- a^6-2a^3+1
- a^2+2a-1
- $3a^2+2a-1$

Question No. 9

Give the y-intercept of the line -5x+y = - 3

- 3
- -5
- 5
- -3

Question No. 5

The Solution set of $|2x| - 18 > -12$ is

- $(-\infty, \infty)$
- $\emptyset$
- (-3,3)
- $(-\infty, -3) \cup (3, \infty)$

MKCL OES
Online Evaluation System

Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4}, 4\right)$
- $\left(-4, \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4, \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4}, \infty\right)$

Question No. 8

The domain of $f(x) = \sqrt[3]{2x+1}$ is

- $(-\infty, \infty)$
- $(-0.5, \infty)$
- $(-\infty, -3) \cup (-3, 1)$
- $[-0.5, \infty)$

Question No. 8

The domain of $f(x) = \sqrt[3]{2x+1}$ is

- $(-\infty, \infty)$
- $(-0.5, \infty)$
- $(-\infty, -3) \cup (-3, 1)$
- $[-0.5, \infty)$

Question No. 6

The domain of $f(x) = x^2 - 2x + 1$ is

- $(-\infty, 8)$
- $(-\infty, \infty)$
- $(0, \infty)$
- $(-4, 2)$

MKCL OES

Maths_Sem1_Qu

Question No. 15

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its grap

- $f(x) = -x^2 - 8x - 20$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -x^2 + 4x - 4$

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Question No. 10

Give the y-intercept of the line $3y - x = 0$

- -3
- 1
- 0
- 3

e & Next حفظ والتالي

OES

Question No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- No x-intercept
- Two x-intercepts
- Nine x-intercepts
- One x-intercept

Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

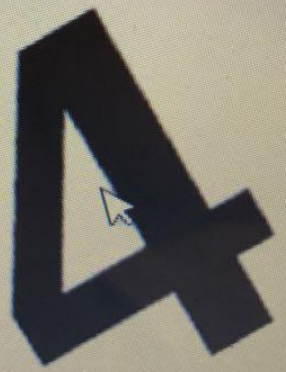
- $3a^2+2a-1$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+8a+4$

https://

Question No. 2

Use set notation, and write the elements belonging to the set
(x | x is a natural number less than 1)

- {0}
- {{0}}
- {1}
- ∅



OES

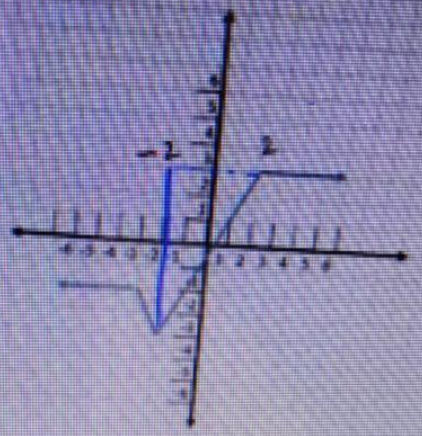
Question No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- No x-intercept
- Two x-intercepts
- Nine x-intercepts
- One x-intercept

Question No. 10

Identify the intervals where this function is increasing.



- $(-2, \infty)$
- $(-3, \infty)$
- $(-3, -2)$
- $(-2, 2)$

Question No. 15

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x) = \frac{1}{x-7}$
- $(f-g)(x) = \frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+23}{(x-2)(x+5)}$

Find $(f-g)(x)$

$= f(x) - g(x)$

$= \frac{3}{x-2} - \frac{4}{x+5}$

$\frac{(x+5)3}{x-2} - \frac{4(x-2)}{x+5}$

$= \frac{3x+15-4x+8}{(x-2)(x+5)}$

$= \frac{-x+23}{(x-2)(x+5)}$

Question No. 28

The range of the function $f(x) = 1 + 2^{5x}$ is

- $(0, \infty)$
- $(1, \infty)$
- $(2, \infty)$
- $(-\infty, \infty)$

$f(x) = 2^{5x} + 1$

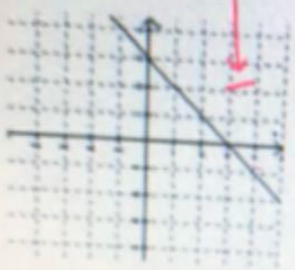
$\therefore$ Range $= (1, \infty)$ ✓✓

$[1, \infty)$ ✗✗✗

Question No. 11

Which graph has a positive slope?

I



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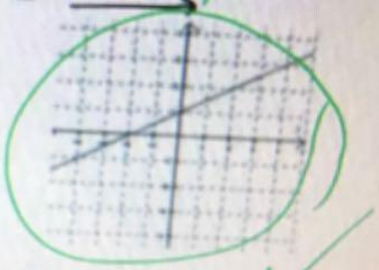

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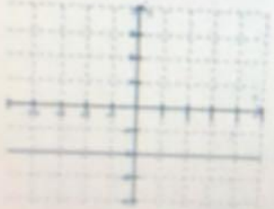

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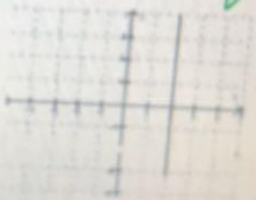


Question No. 27

The inverse of $f(x)=(5x-1)^3$ is

- $f^{-1}(x)=\frac{1}{5}(\sqrt[3]{x}+1)$
- $f^{-1}(x)=5(\sqrt[3]{2x}-1)$
- $f^{-1}(x)=\frac{1}{5}(\sqrt[3]{2x}+1)$
- $f^{-1}(x)=\frac{1}{5}(\sqrt[3]{x}-1)$

$y=(5x-1)^3$

$x=(5y-1)^3$

$\sqrt[3]{x}=5y-1$

$5y=\sqrt[3]{x}+1$

$y=\frac{\sqrt[3]{x}+1}{5}$

$f^{-1}(x)=\frac{1}{5}(\sqrt[3]{x}+1)$

Question No. 7

The Solution set of $-2|x-7| \leq -28$ is

- $(-\infty, -7] \cup [21, \infty)$
- $\emptyset$
- $-7 \leq x \leq 21$
- $(-\infty, \infty)$

$-2|x-7| \leq -28$

$|x-7| \leq 14$

either $x-7 \geq 14$ or $x-7 \leq -14$

$x \geq 21$ $\qquad$ $x \leq -7$

$[21, \infty)$ $\qquad$ $= (-\infty, -7]$

$\therefore (-\infty, -7] \cup [21, \infty)$

MACLOES

Question No. 3

If a>b and c is a real number, then

assume $a=4$, $b=3$ $c=1$

- $b-c<a-c$ ⇒ $3-1<4-1$??
- $b-c>a-c$ $2<3$ //
- $b-c\geq a-c$
- $b-c\leq a-c$

Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $[-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

Domain of $f^{-1}(x)$ = range of $f(x)$

Range $f(x) = R$

So ∴ Domain $f^{-1}(x) = R$

MACL OES

Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+8a+4$

$f(a+1) = 3(a+1)^2 + 2(a+1) - 1$

$= 3(a^2+2a+1) + 2a+2-1$

$= 6a^2+6a+3+2a+1$

$= 6x^2+8a+4$

Question No. 8

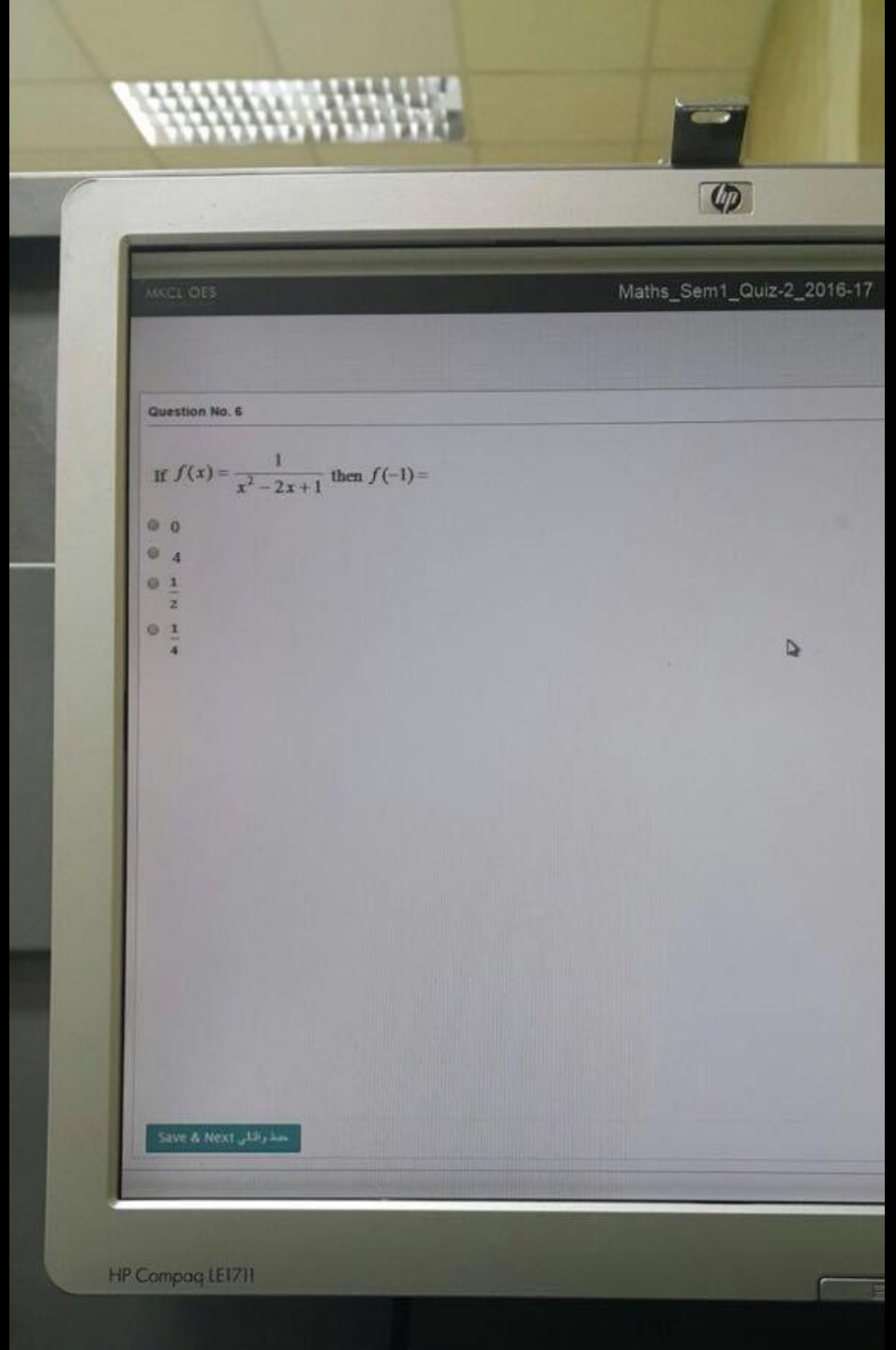
The domain of $f(x) = \sqrt[3]{2x+1}$ is

- $(-\infty, \infty)$
- $(-0.5, \infty)$
- $(-\infty, -3) \cup (-3, 1)$
- $[-0.5, \infty)$

Question No. 18

The remainder of the division $(x^5 + 2x^2 - x + 1) \div (x - 1)$ is

- 4
- 3
- 5
- 2


MACEL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 6
If $f(x)=\frac{1}{x^2-2x+1}$ then $f(-1)=$
0
4
$\frac{1}{2}$
$\frac{1}{4}$
Save & Next
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Question No. 19

The degree of the quotient of the division $(x^8 - 4x^3 + x + 9) \div (x - 3)$ equa

- 6
- 8
- 9
- 7

Question No: 7

The function $f(x)$ is increasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) < f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 > x_2$, then $f(x_1) \leq f(x_2)$.

Solve this rational inequality

$$\frac{x-7}{x+8} \leq 0$$

- (-7,8]
- [-7,8]
- [-8,7]
- (-8,7]

OES

Question No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- No x-intercept
- Two x-intercepts
- Nine x-intercepts
- One x-intercept

Maths_Se

Question No. 2

Determine the solution set of the following inequality

$$-4x + 20 < 0$$

- $S = (-\infty, -5)$
- $S = (5, \infty)$
- $S = (-\infty, 5)$
- $S = (-5, \infty)$

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Online Evaluation System

Question No. 18

The quotient of the division $(x^3 + 3x^2 - x + 1) \div (x + 2)$ is

- $x^2 - x - 3$
- $x^2 - x + 3$
- $x^2 + x - 3$
- $x^2 + x + 3$

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Question No. 18

The quotient of the division $(x^3 + 3x^2 - x + 1) \div (x + 2)$ is

- $x^2 - x - 3$
- $x^2 - x + 3$
- $x^2 + x - 3$
- $x^2 + x + 3$

Save & Next جतन र पुढील

Question No. 8

The range of $f(x)=\sqrt{x^2+1}$ is

- $[-1, \infty)$
- $(0, \infty)$
- $[0, \infty)$
- $[1, \infty)$

Question No. 19

If $f(x)$ is a polynomial such that $f(1) = 6$ then the remainder of the division $f(x) \div (x - 1)$ equals:

- (•) 6
- ( ) 1
- ( ) -1
- ( ) -6

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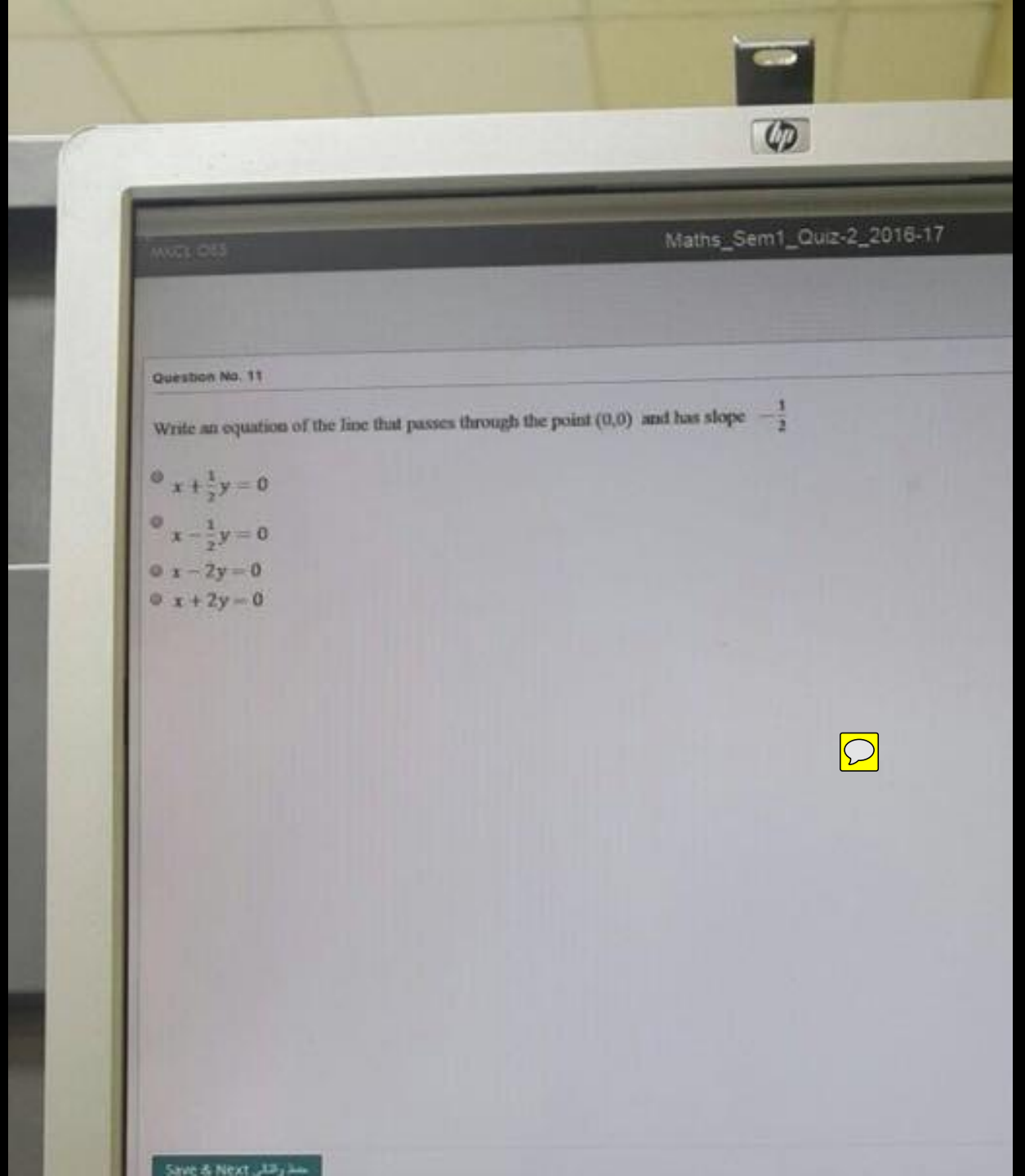
Question No. 13

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Determine the domain of the product of $f(x)$ and $g(x)$.

- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-5, 2)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$


Maths_Sem1_Quiz-2_2016-17
Question No. 11
Write an equation of the line that passes through the point (0,0) and has slope $-\frac{1}{2}$
$x+\frac{1}{2}y=0$
$x-\frac{1}{2}y=0$
$x-2y=0$
$x+2y=0$

Question No. 19

If $f(x)$ is a polynomial such that $f(1) = 6$ then the remainder of the division $f(x) \div (x - 1)$ equals:

- (•) 6
- ( ) 1
- ( ) -1
- ( ) -6

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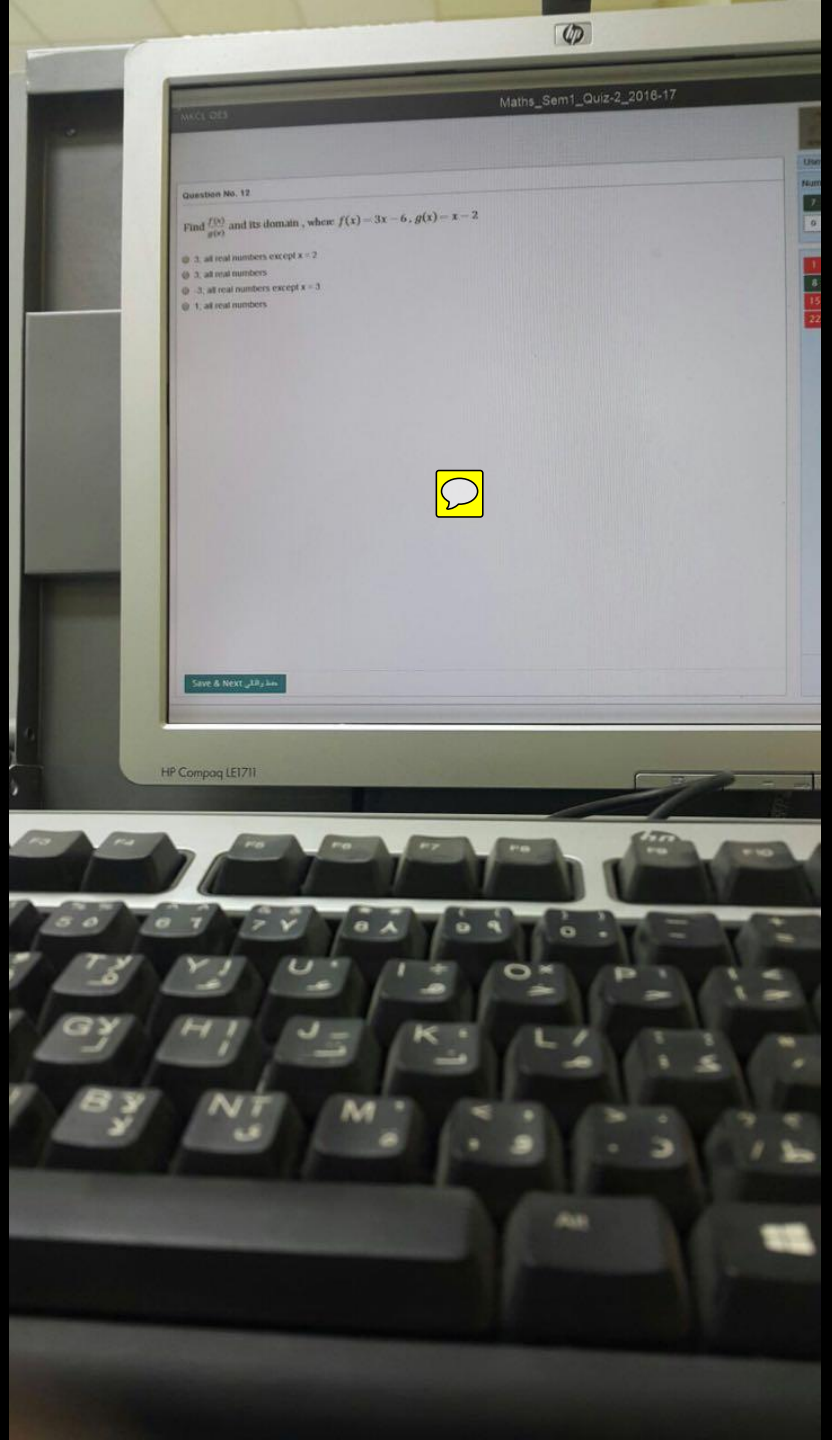
Maths_Sem1_Quiz-2_2016-17
Question No. 12
Find $\frac{f(x)}{g(x)}$ and its domain , where: $f(x) = 3x - 6$, $g(x) = x - 2$
3; all real numbers except x = 2
3; all real numbers
-3; all real numbers except x = 3
1; all real numbers
Save & Next
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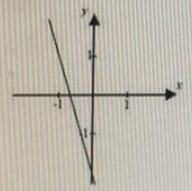
Question No. 11

The slope of a linear function is 3 and its y-intercepts is -2.
Which graph represents this function?

I



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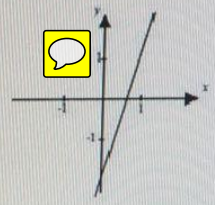

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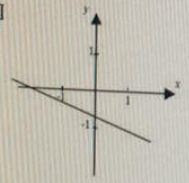

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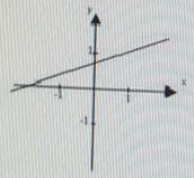

- II
- I
- III
- IV

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Question No. 24

Which of the following functions is not one-to-one

- $f(x) = x^3$
- $f(x) = -x$
- $f(x) = \sqrt{x}$
- $f(x) = -x^2$

Save & Next जतन व पुढील

Question No. 2

Determine the solution set of the following inequality

$$4 \leq -4 + 2x < 10$$

- s=[4,7)
- s=(4,7)
- s=(4,7]
- s=[4,7]

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Question No. 24

Let $f(x)$ be a one-to-one function, then $g(x)$ is the inverse function of $f(x)$ if

- $(fog)(x) = x$ only
- $(fog)(x) \neq x$ and $(gof)(x) \neq x$
- $(fog)(x) \neq x$ only
- $(fog)(x) = x$ and $(gof)(x) = x$

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Question No. 25

The inverse of $f(x)=\dfrac{1}{3x+1}, x\neq\dfrac{-1}{3}$, is

- $f^{-1}(x)=\dfrac{x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\dfrac{-x+1}{x}, x\neq 0.$
- $f^{-1}(x)=\dfrac{-x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\dfrac{-x-1}{3x}, x\neq 0.$

MHCL OES

Maths_Sem1_Quiz-2_2016-17

Question No. 8

The range of $f(x) = \sqrt{x^2+1}$ is

- $[-1, \infty)$
- $(0, \infty)$
- $[0, \infty)$
- $[1, \infty)$

Save & Next

Question No. 25

The inverse of $f(x)=\frac{\sqrt[3]{x}-5}{2}$ is

- $f^{-1}(x)=(2x+5)$
- $f^{-1}(x)=\frac{1}{3}(2x+5)$
- $f^{-1}(x)=3(2x+5)$
- $f^{-1}(x)=(2x+5)^3$

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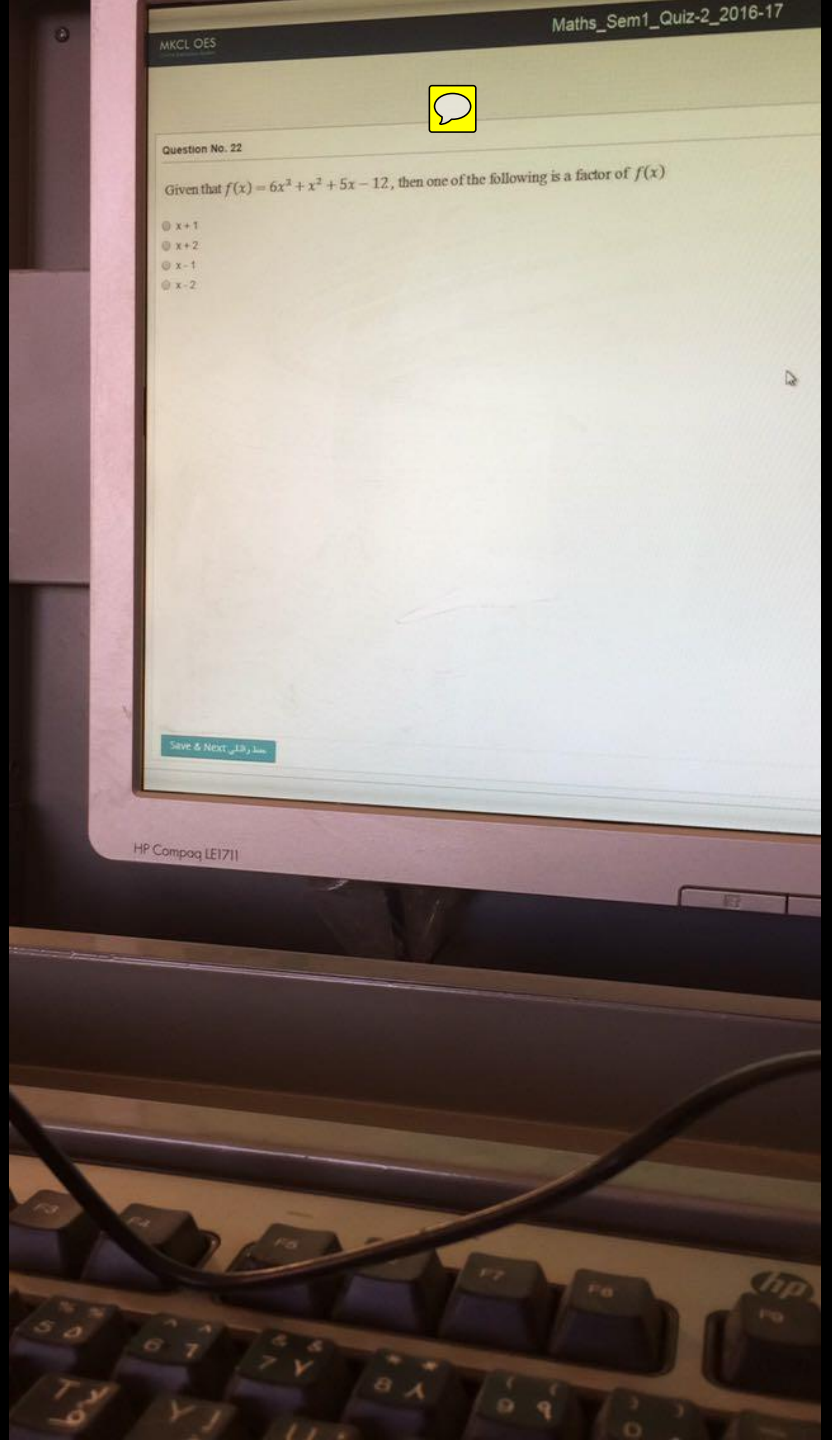
MKCL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 22
Given that $f(x) = 6x^3 + x^2 + 5x - 12$, then one of the following is a factor of $f(x)$
x + 1
x + 2
x - 1
x - 2
Save & Next
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Question No: 9

Find the slope of the line through the points (-4,8),(2,-3)

- $\frac{11}{6}$
- $\frac{6}{11}$
- $-\frac{6}{11}$
- $-\frac{11}{6}$

Save & Next حفظ والتالي

Question No. 4

The Solution set of $\frac{1}{9}|x-7|=7$ is

- {56,70}
- {70,-56}
- {70,-70}
- {56,-56}

Question No. 17

The interval where the graph of $f(x) = x^2 + 2x - 3$ decreases is

- $(-\infty, -1]$
- $(-\infty, \infty)$
- $[-1, \infty)$
- $[-3, \infty)$

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MKCL OES

Question No. 22

If the remainder of the division of $f(x)$ by $x+a$ is zero then

- a is a factor of the polynomial $f(x)$
- $x-a$ is a factor of the polynomial $f(x)$
- x is a factor of the polynomial $f(x)$
- $x+a$ is a factor of the polynomial $f(x)$

Save & Next

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Question No. 1

If a>b and c is a real number, then

- $b-c \leq a-c$
- $b-c > a-c$
- $b-c \geq a-c$
- $b-c < a-c$

MKCL OES

Question No. 3

Determine the solution set of the following inequality

$$(x-5)^2 \geq 4$$

- $(-\infty, 3) \cup (7, \infty)$
- $(-\infty, 3] \cup [7, \infty)$
- $[3, 7]$
- $(3, 7)$

Save & Next

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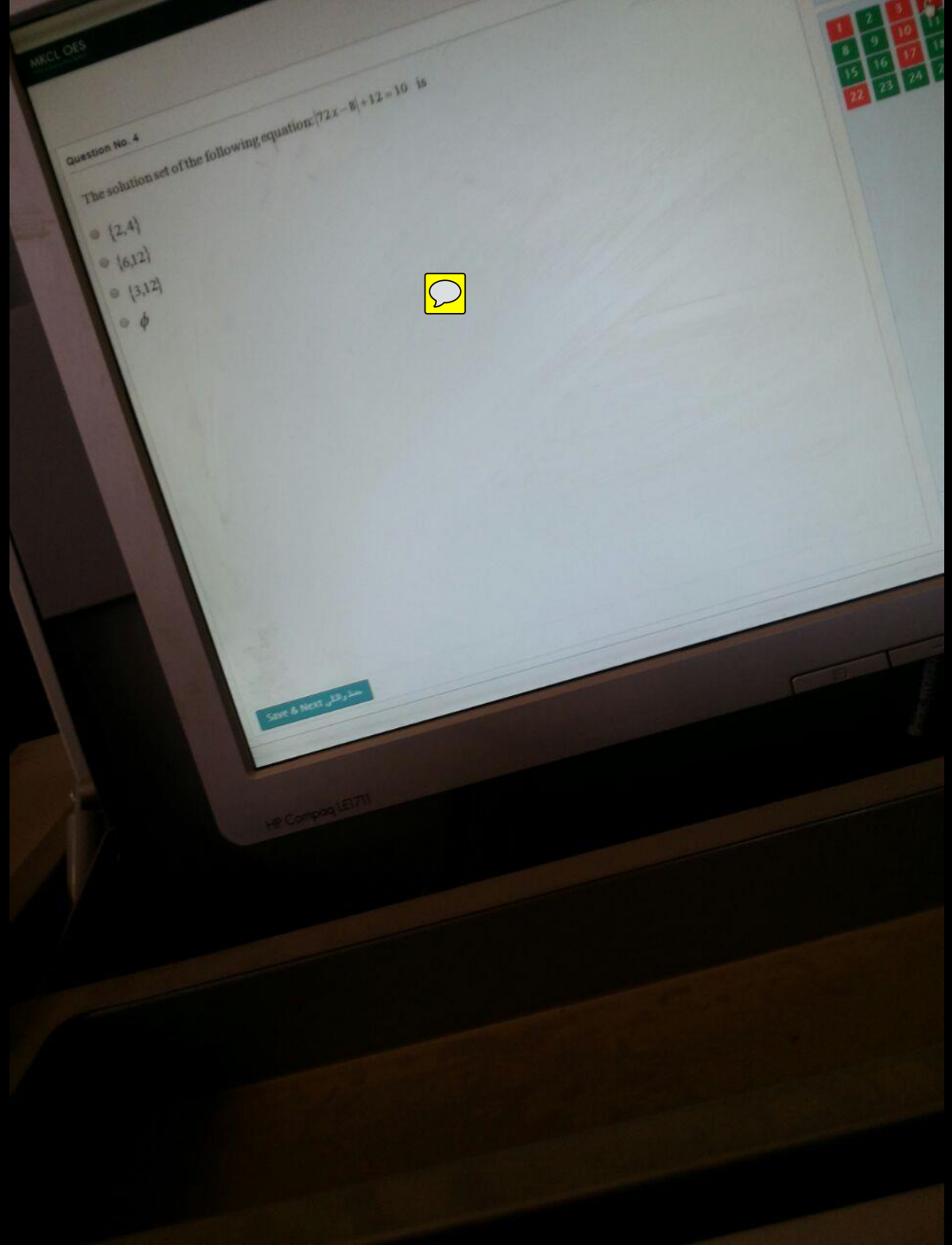
MKCL OES
Question No. 4
The solution set of the following equation: $|7x-8|+12=10$ is
$\{2,4\}$
$\{6,12\}$
$\{3,12\}$
ϕ
Save & Next
HP Compaq LE1711

Question No. 5

The solution set of $7 - 3|4x + 7| \leq -2$ is

- $(-\infty, -2.5] \cup [-1, \infty)$
- $(-\infty, -1] \cup [1, \infty)$
- $(-\infty, -2.5] \cup [2.5, \infty)$
- $(-\infty, 1] \cup [2.5, \infty)$

Question No. 6

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+8a+4$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+2a-1$

Save & Next حفظ والتالي

Question No. 10

The line through the point (-1,-3) with slope equal to zero is

- x = -3
- y = -3
- x = -1
- y = -1

MACLOES

Question No. 12

Find $\frac{f(x)}{g(x)}$ and its domain , where $f(x) = 3x - 6$, $g(x) = x - 2$

- 3; all real numbers except x = 2
- 3; all real numbers
- 1; all real numbers
- -3; all real numbers except x = 3

Save & Next حفظ والتالي

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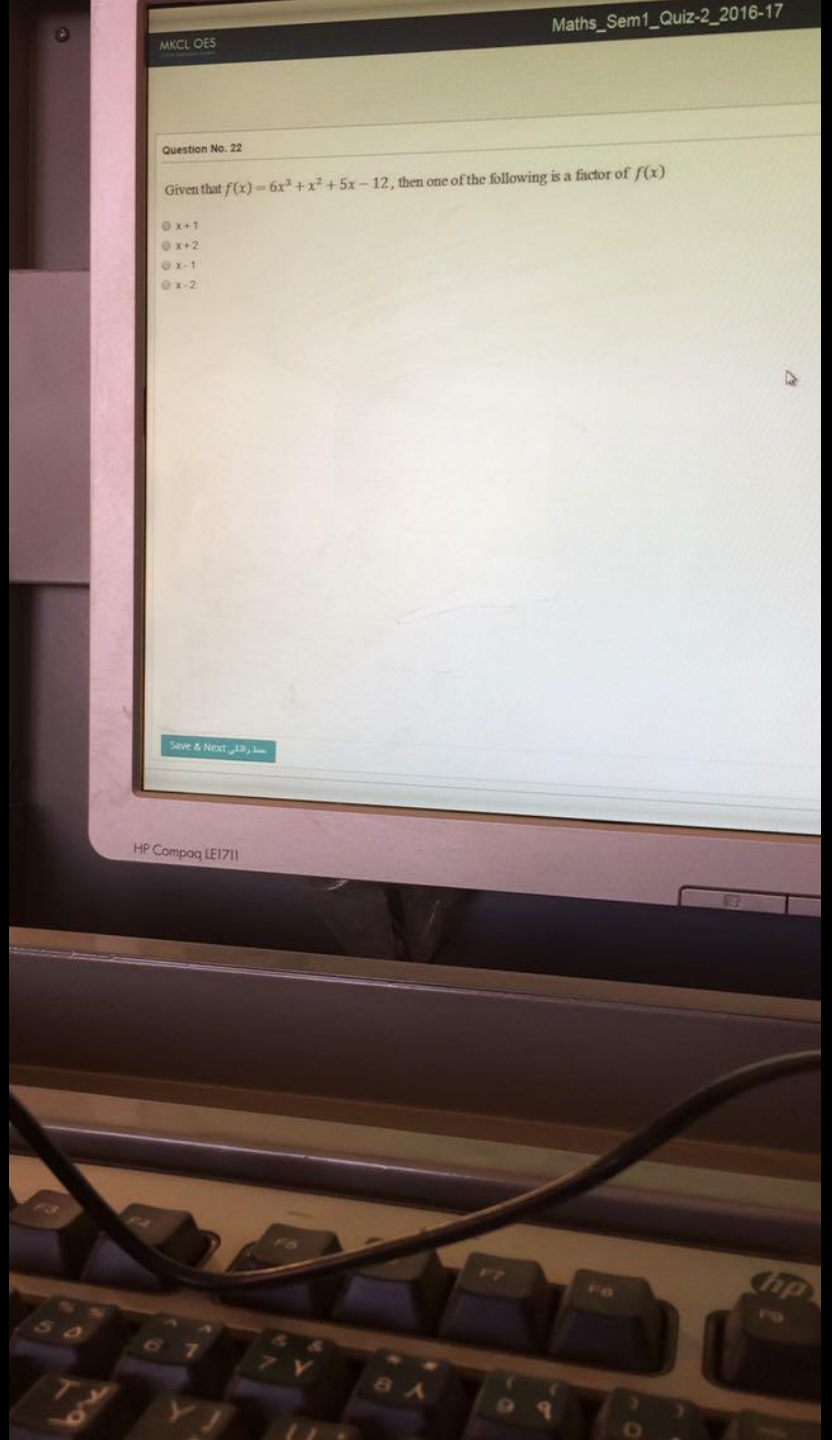
MKCL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 22
Given that $f(x) = 6x^3 + x^2 + 5x - 12$, then one of the following is a factor of $f(x)$
x + 1
x + 2
x - 1
x - 2
Save & Next
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MACLOES

Question No. 12

Find $\frac{f(x)}{g(x)}$ and its domain , where $f(x) = 3x - 6$, $g(x) = x - 2$

- 3; all real numbers except x = 2
- 3; all real numbers
- 1; all real numbers
- -3; all real numbers except x = 3

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Question No. 6

If $f(x) = \frac{1}{x^2 + x + 1}$ then $f(-1) =$

- 0
- 1
- -1
- 5

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HP Compaq LE1711

Question No. 3

Determine the solution set of the following inequality

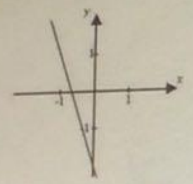
$$3 + x < \frac{1 - 3x}{2} \leq x + 8$$

- (-1,3]
- (-3,-1]
- [-3,-1)
- [-1,3)

Question No. 11

The slope of a linear function is 3 and its y-intercepts is -2.
Which graph represents this function?

I



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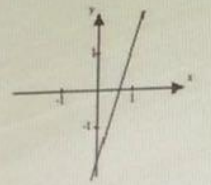

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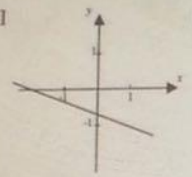

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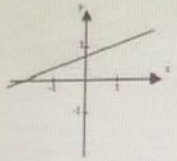

- II
- IV
- III
- I

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MKCL OES

Question No. 13

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Determine the domain of the product of $f(x)$ and $g(x)$.

- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$
- $x \in (-5, 2)$

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Question No. 14

If $f(x)=\sqrt{x+2}$ and $g(x)=3x-5$. Find $h(x)=(g\circ f)(x)$

- $h(x)=3\sqrt{x-1}$
- $h(x)=3\sqrt{x+2}-5$
- $h(x)=\sqrt{3x-3}$
- $h(x)=3\sqrt{x}+3$

Save & Next حفظ والتالي

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Question No. 15

Find the domain and the range of the function $f(x) = (x+8)^2 - 7$

- Domain:(-∞,∞);range:(-8,∞)
- Domain:(-7,∞);range:(-∞,∞)
- Domain:(-8,∞);range:(-∞,∞)
- Domain:(-∞,∞);range:[-7,∞)

Save & Next حفظ والتالي

Question No. 3

Determine the solution set of the following inequality

$$(x-1)^2 \leq 4$$

- [-3,1)
- (-3,-1]
- (-1,3)
- [-1,3]

Save & Next

MKCL OES
Online Evaluation System

Question No. 15

Which of these quadratic functions has the narrowest graph?

- $y = -3x^2$
- $y = \frac{1}{3}x^2$
- $y = -4x^2$
- $y = \frac{1}{7}x^2$

Question No. 11

Write the equation of the line passes through (–5,6), and prependicular to the line x = -2

- x = -5
- -5x + 6y = -2
- y = 6
- 5x + 6y = 2

Question No. 15

Identify the vertex and the y-intercept of the graph of the function $y = 3(x+2)^2 - 5$

- vertex:(2,5); y-intercept: 12
- vertex: (2,-5); y-intercept: 7
- vertex:(-2,5); y-intercept: -1
- vertex:(-2,-5); y-intercept: 7

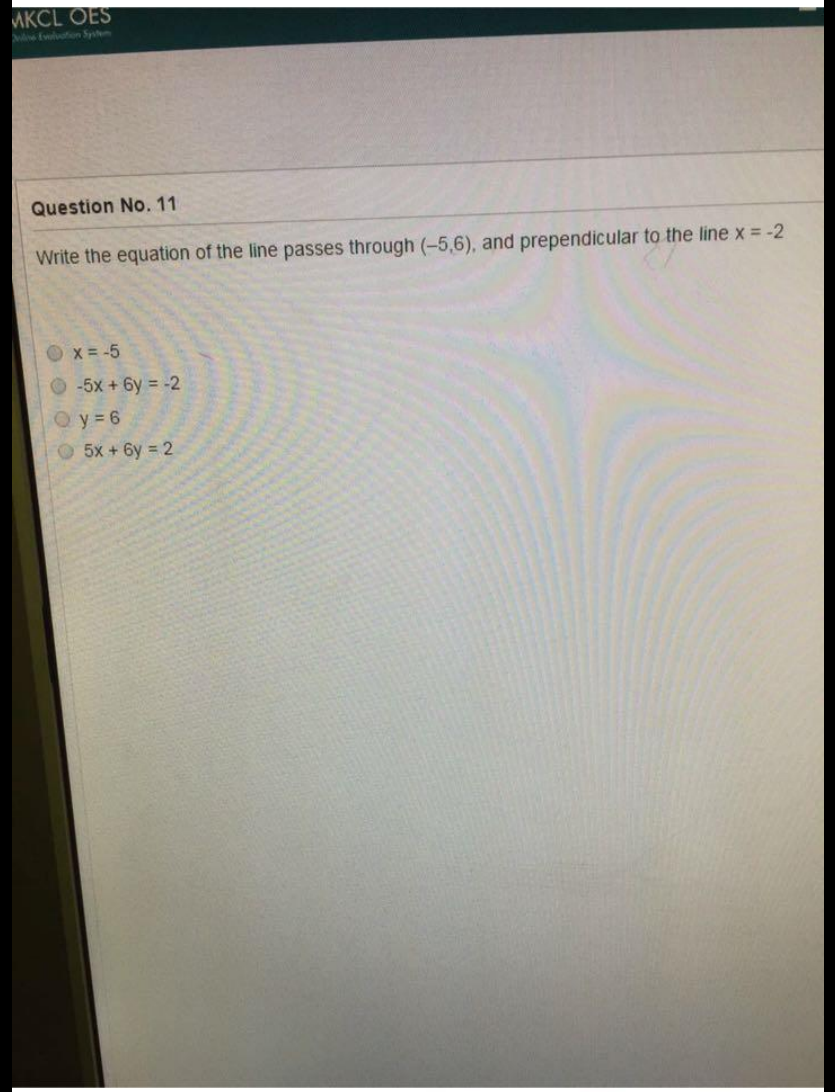
Save & Next حفظ والتالي

MKCL OES

Question No. 5

The Solution set of $-|4x+2| \geq 6$ is

- $(-\infty, +\infty)$
- $(-2, 1)$
- $\emptyset$
- $(-\infty, -2] \cup [1, \infty)$



MKCL OES

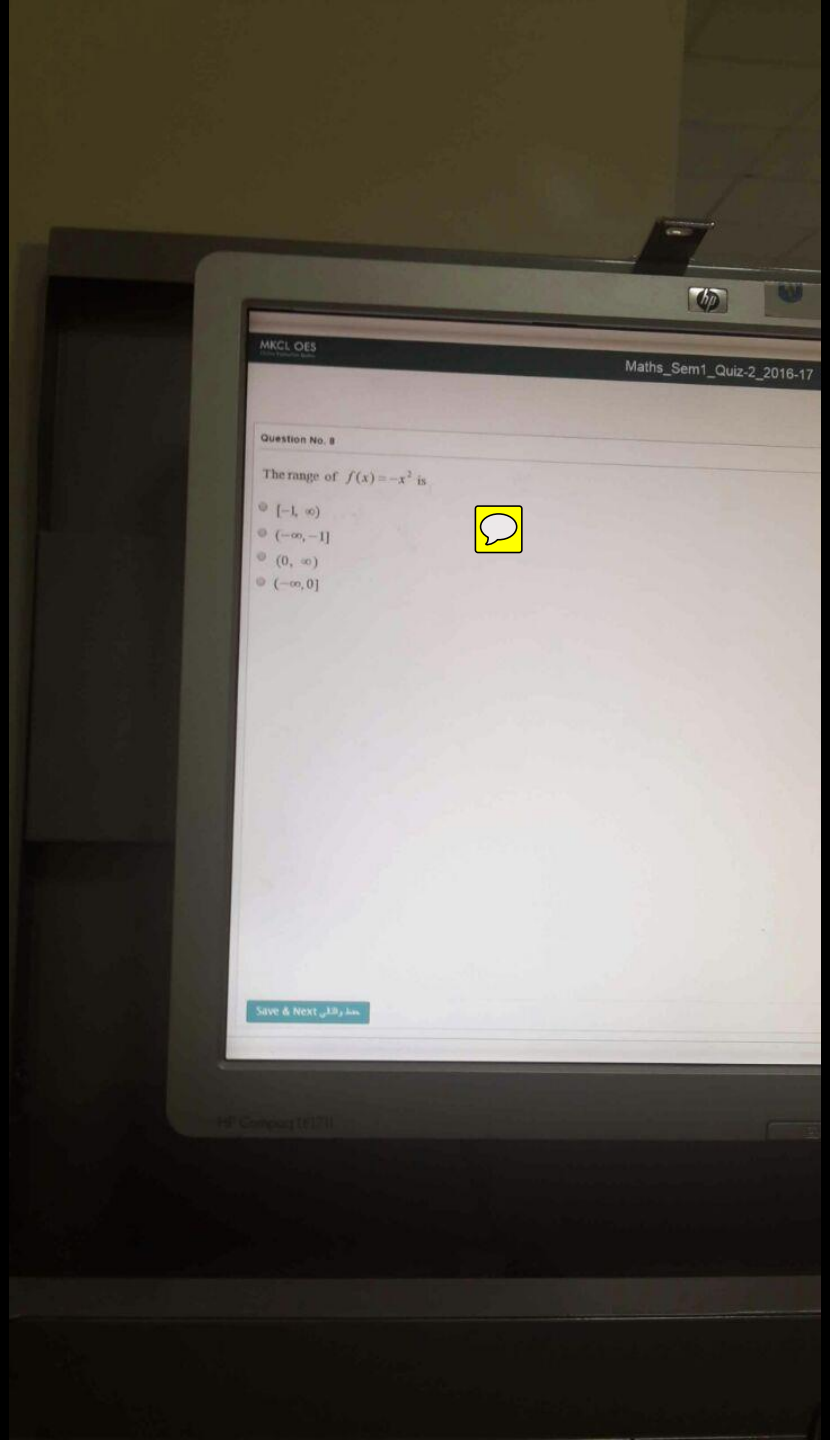
Maths_Sem1_Quiz-2_2016-17

Question No. 15

Identify the vertex and the y-intercept of the graph of the function $y = 3(x+2)^2 - 5$

- vertex:(-2,5); y-intercept: -1
- vertex:(2,5); y-intercept: 12
- vertex:(-2,-5); y-intercept: 7
- vertex: (2,-5); y-intercept: 7

Save & Next جمع وتالي


MKCL OES
Maths_Sem1_Quiz-2_2016-17
Question No. 8
The range of $f(x) = -x^2$ is
$[-1, \infty)$
$(-\infty, -1]$
$(0, \infty)$
$(-\infty, 0]$
Save & Next

AMGL OES

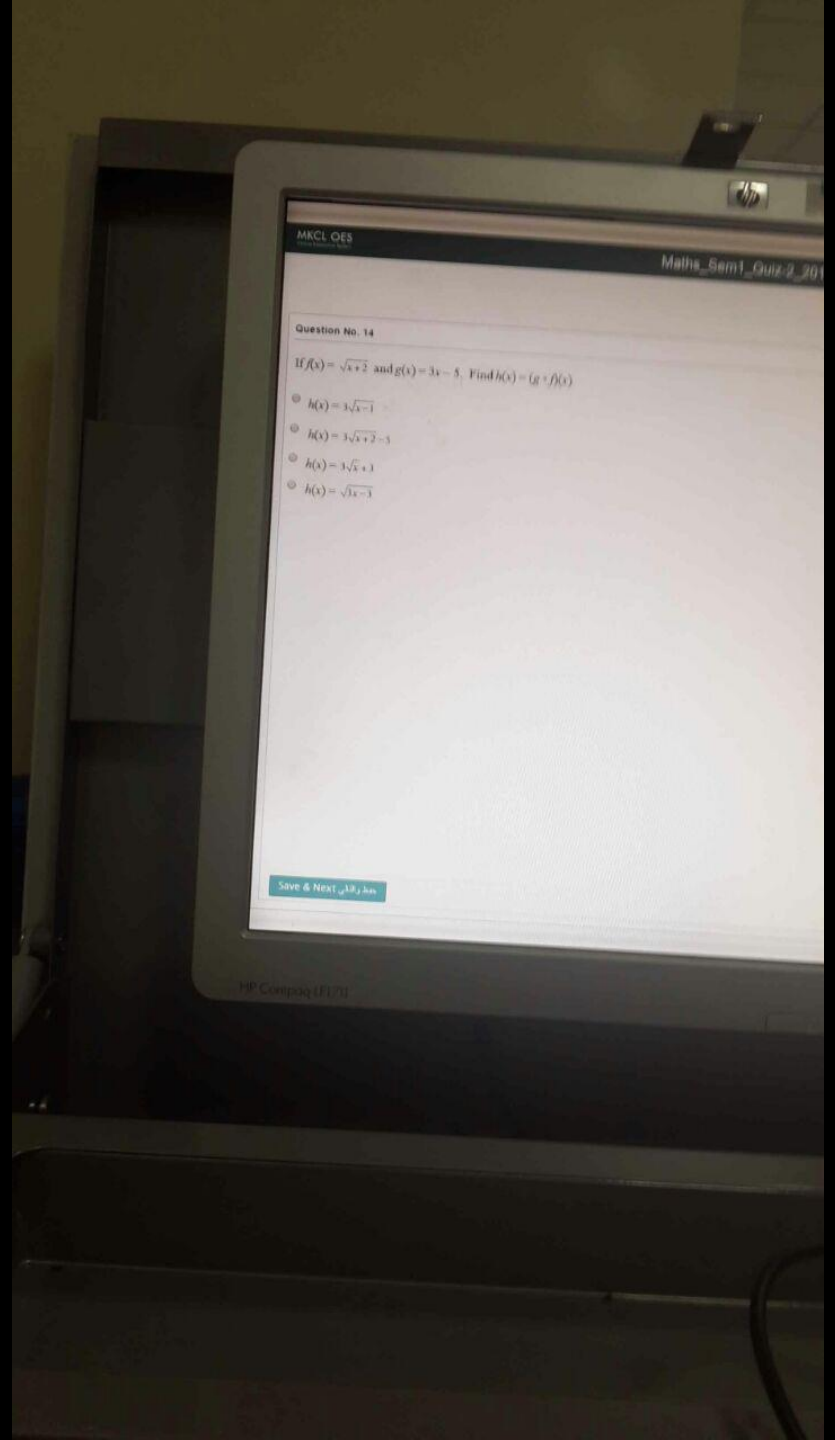
Maths_Sem1_Quiz-2_201

Question No. 16

The domain of the function $f(x) = x^2 - 4x + 7$ is

- $[7, \infty)$
- $[-4, \infty)$
- $(-\infty, \infty)$
- $(-\infty, 7]$

Save & Next محفظ والتالي


MKCL OES
Maths_Sem1_Quiz-2_201
Question No. 14
If $f(x)=\sqrt{x+2}$ and $g(x)=3x-5$. Find $h(x)=(g\circ f)(x)$
$h(x)=3\sqrt{x-1}$
$h(x)=3\sqrt{x+2}-5$
$h(x)=3\sqrt{x}+3$
$h(x)=\sqrt{3x-3}$
Save & Next
HP Compaq

MKCL OES

Question No. 3

Determine the solution set of the following inequality

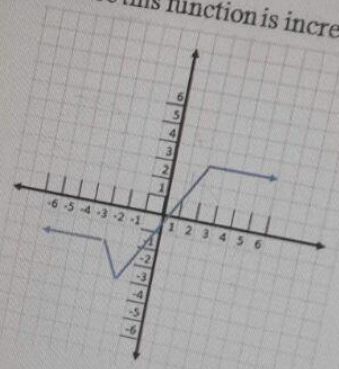
$$(x-5)^2 \geq 4$$

- $(-\infty, 3) \cup (7, \infty)$
- $[3, 7]$
- $(3, 7)$
- $(-\infty, 3] \cup [7, \infty)$

MKCL OES

Question No. 8

Identify the intervals where this function is increasing.



- $(-3,-2)$
- $(-2,\infty)$
- $(-2,2)$
- $(-3,\infty)$

Save & Next

MKCL OES

Question No. 2

Determine the solution set of the following inequality $-2x-10<0$

- $S=(-\infty,-5)$
- $S=(5,\infty)$
- $S=(-5,\infty)$
- $S=(-\infty,5)$

MKCL OES

Question No. 9

The slope of the line through the points $(x_1, y_1), (x_2, y_2)$

- $\frac{y_2 - y_1}{x_2 + x_1}$
- $\frac{y_2 + y_1}{x_2 + x_1}$
- $\frac{y_2 - y_1}{x_2 - x_1}$
- $\frac{y_2 + y_1}{x_2 - x_1}$

MKCL OES

Question No. 7

If $f(x)=x^3+2x^2-1$ then $f(a^4)=$

- a^7+2a^5-1
- $a+2a^{-1}-1$
- a^9-1
- $a^{12}+2a^8-1$

MKCL OES

Question No. 4

The solution set of the following equation: $|x+1|=-0.5$ is

- $\{0.5\}$
- $\{-2\}$
- ϕ
- $\{19\}$

MKCL OES

Question No. 11

Find the slope of the line $3x - \sqrt{3}y = \sqrt{2}$

- $\sqrt{3}$
- $\sqrt{2}$
- 3
- Undefined.

MKCL OES

Question No. 5

The Solution set of $2-|1+\frac{x}{2}| \geq 5$ is

- $[-4,8]$
- $\emptyset$
- $(-\infty,\infty)$
- $(-\infty,-8] \cup [4,\infty)$

MKCL OES
Online Evaluation System

Question No. 12

If $f(x) = \frac{1}{x}$ and $g(x) = x + 2$, what is $g(f(4))$?

- $\frac{3}{2}$
- $\frac{9}{4}$
- $\frac{25}{4}$
- $\frac{1}{6}$

MKCL OES

Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4, 5)$
- $(-\infty, -5) \cup (4, \infty)$
- $(-5, 4)$
- $(-\infty, -4) \cup (5, \infty)$

NWCL OES

Question No. 15

Which of these quadratic functions has the narrowest graph?

- $y = \frac{1}{7}x^2$
- $y = \frac{1}{3}x^2$
- $y = -4x^2$
- $y = -3x^2$

MKCL OES
Online Evaluation System

Question No. 13

If $f(x) = 5x^2 + 5x + 3$ and $g(x) = 3x^2 + 10x + 6$. Find $h(x) = f(x) - g(x)$.

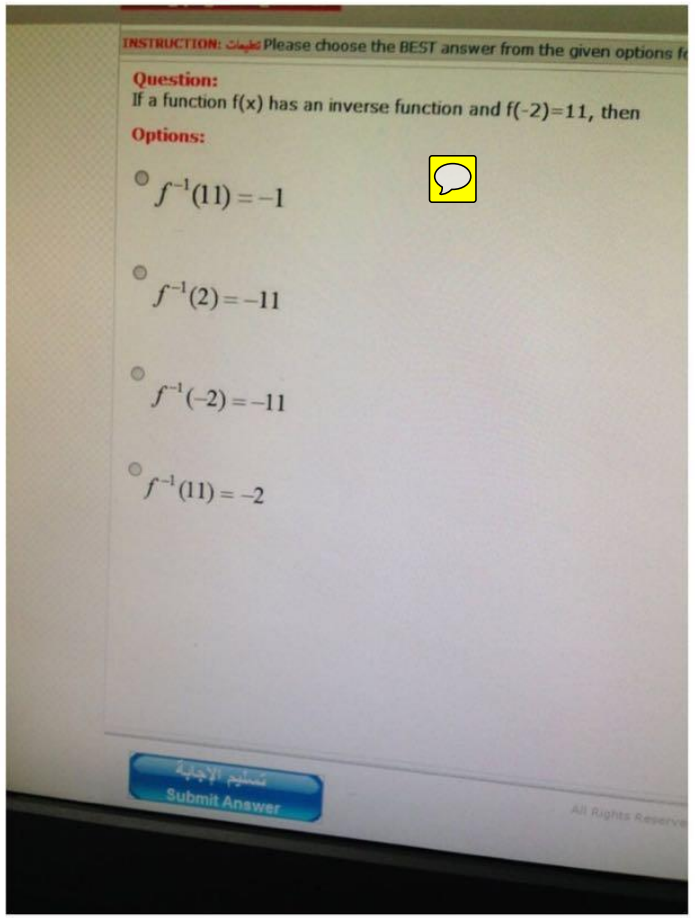
- $h(x) = 2x^2 - 5x + 1$
- $h(x) = -2x^2 + 5x + 3$
- $h(x) = 2x^2 - 5x - 3$
- $h(x) = -2x^2 + 5x + 1$

MKCL OES
Online Evaluation System

Question No. 10

The slope of the line $x = -3$ is

- 1
- -1
- 0
- Undefined



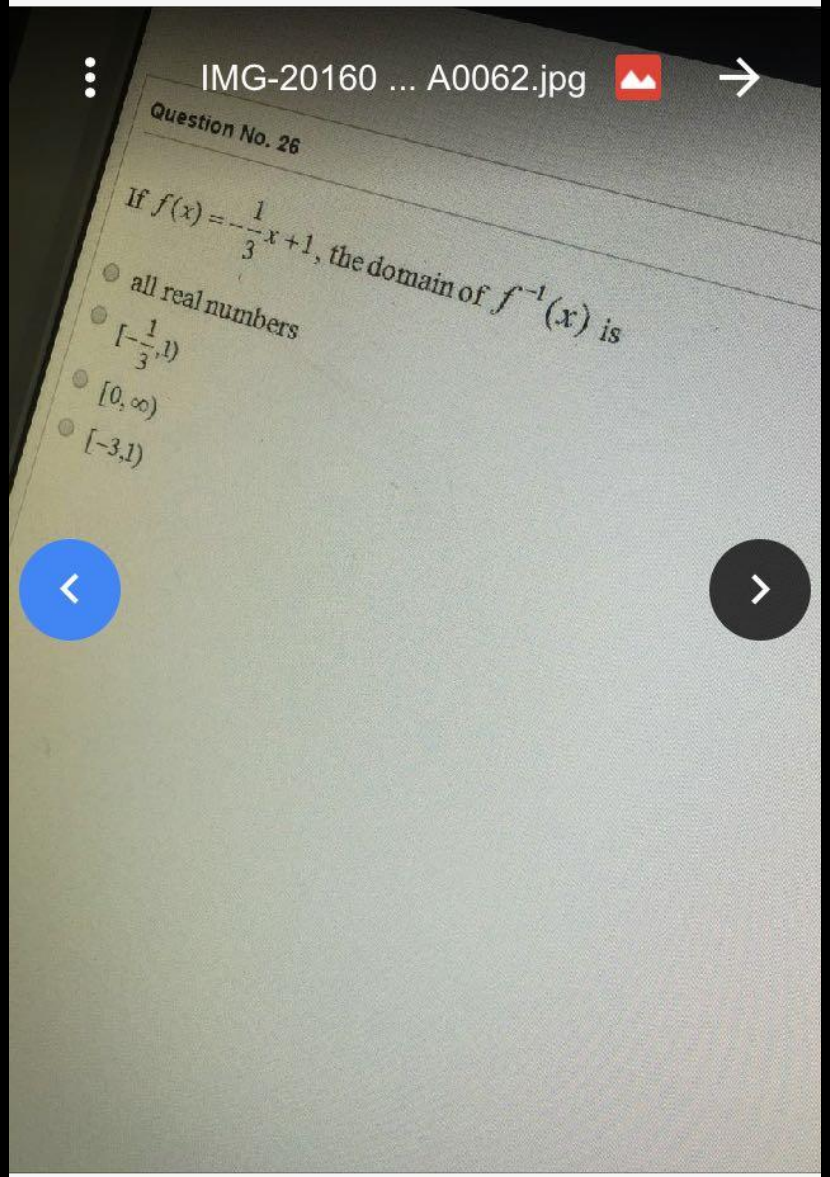
MKCL OES

Question No. 1

Solve $6 \leq x - 2 < 14$

- $8 \leq x < 16$
- $6 \leq x < 16$
- $8 \leq x < 20$
- $4 \leq x < 12$

Save & Next



MARCH QES

Question No. 9

If $f(x)=(x-1)^2$ then $f(a^3)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^6-2a^3+1
- a^6+a+2

Question No. 21

If x-4 is a factor of the polynomial f(x) then

- $f(4) = 0$
- $f(0) = 4$
- $f(-4) = 0$
- $f(0) = -4$

MKCL OES

Question No. 2

Write $x < -4$ or $x \geq 4$ in interval notation

- $(-\infty, -4] \cup (4, \infty)$
- $(-\infty, -4) \cup [4, \infty)$
- $(-4, 4]$
- $[-4, 4)$

Save & Next جतन र अगली

Question No. 20

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

Question No. 23

Which of the following functions is not one-to-one

- F= { (4,-3), (1,0), (5,-2), (1,3) }
- F= { (3,5), (6,0), (7,-2), (1,-5) }
- F= { (6,-3), (0,5), (4,-2), (1,-3) }
- F= { (-3,-2), (0,4), (3,2), (1,-5) }

MKCL OES

Question No. 11

Find the equation of the line parallel to y = 3x – 1 that passes through the point (0, 5)

- y = 3x - 5
- y = 3x + 5
- y = -3x – 5
- y = -3x + 5

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Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4}, 4\right)$
- $\left(-4, \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4, \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4}, \infty\right)$

Question No. 8

The domain of $f(x) = \sqrt[3]{2x+1}$ is

- $(-\infty, \infty)$
- $(-0.5, \infty)$
- $(-\infty, -3) \cup (-3, 1)$
- $[-0.5, \infty)$

Question No. 19

If $f(x)$ is a polynomial such that $f(2) = 3$ then the remainder of the division $f(x) \div (x-2)$ equals:

- -2
- 3
- -3
- 2

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Question No. 20

If 'a' is a real number then the remainder of the division $(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 5
- a + 2
- a + 4
- a + 3

Save & Next जतन करा पुढे

MKCL QES

Question No. 16

The axis of the graph of $f(x) = x^2 - x + 1$ is

- $y = \frac{-1}{2}$
- $x = \frac{-1}{2}$
- $y = \frac{1}{2}$
- $x = \frac{1}{2}$

Save & Next

MKCL OES

Maths_S

Question No. 4

The solution set of the following equation: $|16-5x|-2=3$ is

- $\left\{\frac{4}{5},\frac{8}{5}\right\}$
- ϕ
- $\{4,7\}$
- $\left\{\frac{11}{5},\frac{21}{5}\right\}$

MKCL OES

Question No. 10

The slopes of two parallel lines are

- 0
- equal
- different
- undefined

Save & Next جطف و تالي

Question No. 24

Let f be the one-to-one function defined by this set of ordered pairs {(-3,2), (
Then $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

tion No. 24

et f be the one-to-one function defined by this set of ordered pairs {(-3,2), (4,5),(7,4),(10,19)}. hen $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

Question No. 9

Determine the solution set of the following inequality

$$3 + x < \frac{1 - 3x}{2} \leq x + 6$$

- $(-1, 3]$
- $[1, 5)$
- $(3, 5)$
- $[3, 5)$

MKCL OES

Question No. 15

What is the equivalent equation of $x^2 - 6x + 2 = 0$ by completing the square?

- $(x-3)^2 - 7 = 0$
- $(x-6)^2 + 2 = 0$
- $(x-3)^2 - 11 = 0$
- $(x+3)^2 - 11 = 0$

Question No. 8

Let $A = \{-6, -12, -5, \sqrt{3}, 0, 2\pi, 3, \sqrt{12}\}$. The subset of all rational numbers of A is

- $\{-6, -12, -5, 0, 3\}$
- $\{-\sqrt{3}, 2\pi, \sqrt{12}\}$
- $\{-6, -12, -5, -\sqrt{3}, 0, 3, \}$
- $\{-6, 0, 3\}$

Question No. 4

Select the correct property that describes the given equation.
$x + (y + 3) = x + (3 + y)$

- Inverse property of addition
- Identity property of addition
- Commutative property of addition
- Associative property of multiplication

Simplify $\frac{x^{-1}+y^{-1}}{1-x^{-1}}$

- $\frac{x+1}{x-1}$
- $\frac{x+y}{y(x-1)}$
- $\frac{x+y}{x-1}$
- $\frac{x+y}{xy-1}$

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MKCL OES

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the sum of $f(x)$ and $g(x)$.

- $(f+g)(x)=\frac{7}{x+3}$
- $(f+g)(x)=\frac{7x+7}{(x-2)(x+5)}$
- $(f+g)(x)=\frac{7x-3}{(x-2)(x+5)}$
- $(f+g)(x)=\frac{7x+13}{(x-2)(x+5)}$

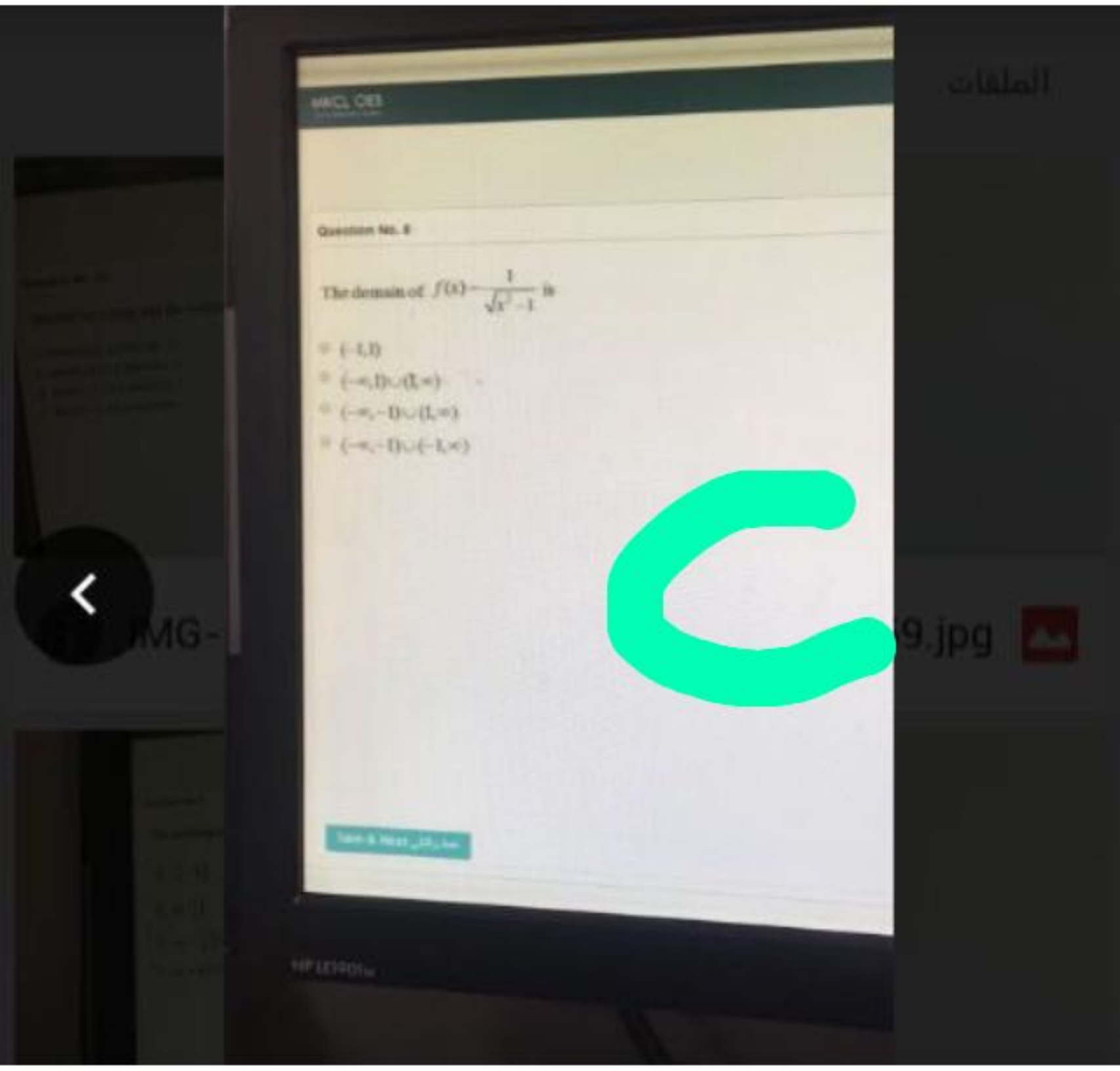
B

MKCL OES

Question No. 4

The solution set of the following equation:$|8 - 6x| = -3$ is

- ϕ
- $\left\{\frac{4}{6}, \frac{1}{6}\right\}$
- $\left\{\frac{5}{6}, \frac{11}{6}\right\}$
- $\left\{3, \frac{11}{6}\right\}$



Question No. 20

If 'a' is a real number then the remainder of the div
$(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 2
- a + 5
- a + 3
- a + 4

D

Question No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- Two x-intercepts
- Nine x-intercepts
- No x-intercept
- One x-intercept

D

Question No. 23

A function is one-to-one if

- every vertical line intersects the graph twice
- every horizontal line intersects the graph twice
- every horizontal line intersects the graph at most once
- every vertical line intersects the graph at most once

C

MKCL OES

Question No. 13

If $p(x)=\sqrt{x+3}$ and $q(x)=\sqrt{x-4}$. Compute the product $H(x)=(p\cdot q)(x)$.

- $H(x)=\sqrt{x-1}$
- $H(x)=\sqrt{x+1}$
- $H(x)=\sqrt{(x+3)(x-4)}$
- $H(x)=(x+3)(x-4)$

Save & Next

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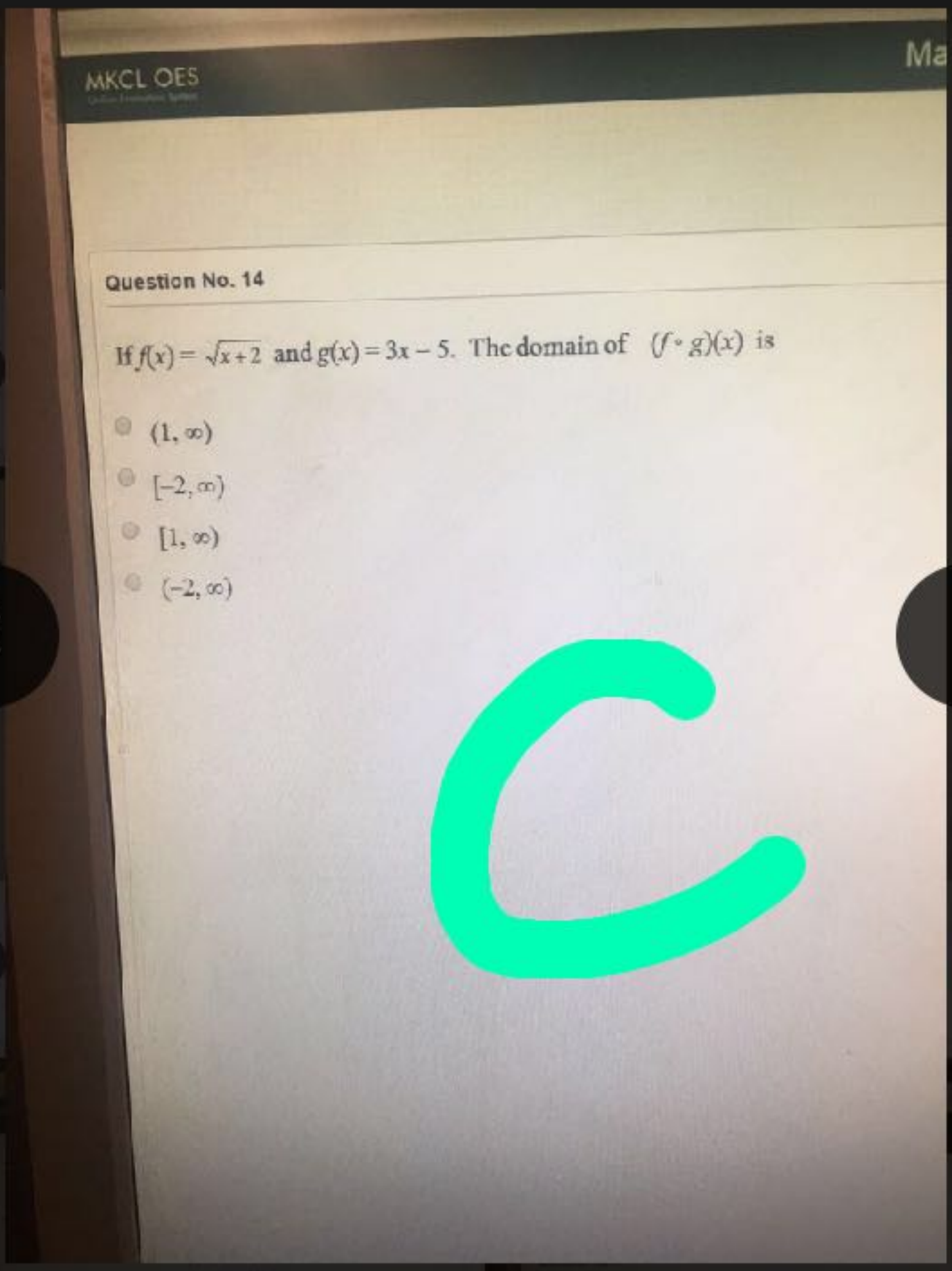


MKCL OES

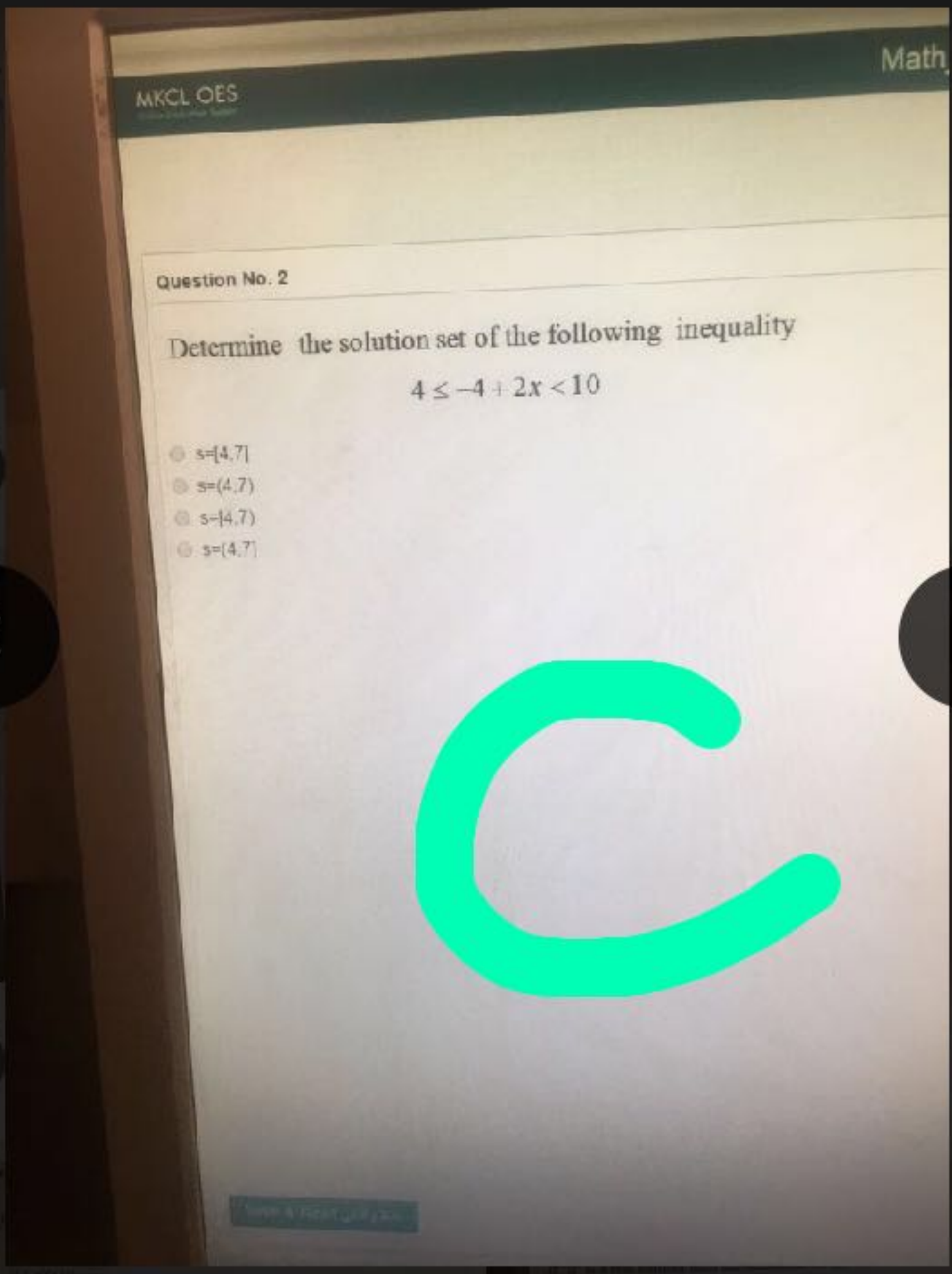
Math_Quiz2_Se

Question No. 19

If $f(x)$ is a polynomial such that $f(5) = -7$ then the remainder of the division $f(x) \div (x-5)$ equals:

- -7
- 5
- 7
- -5

A



MKCL OES

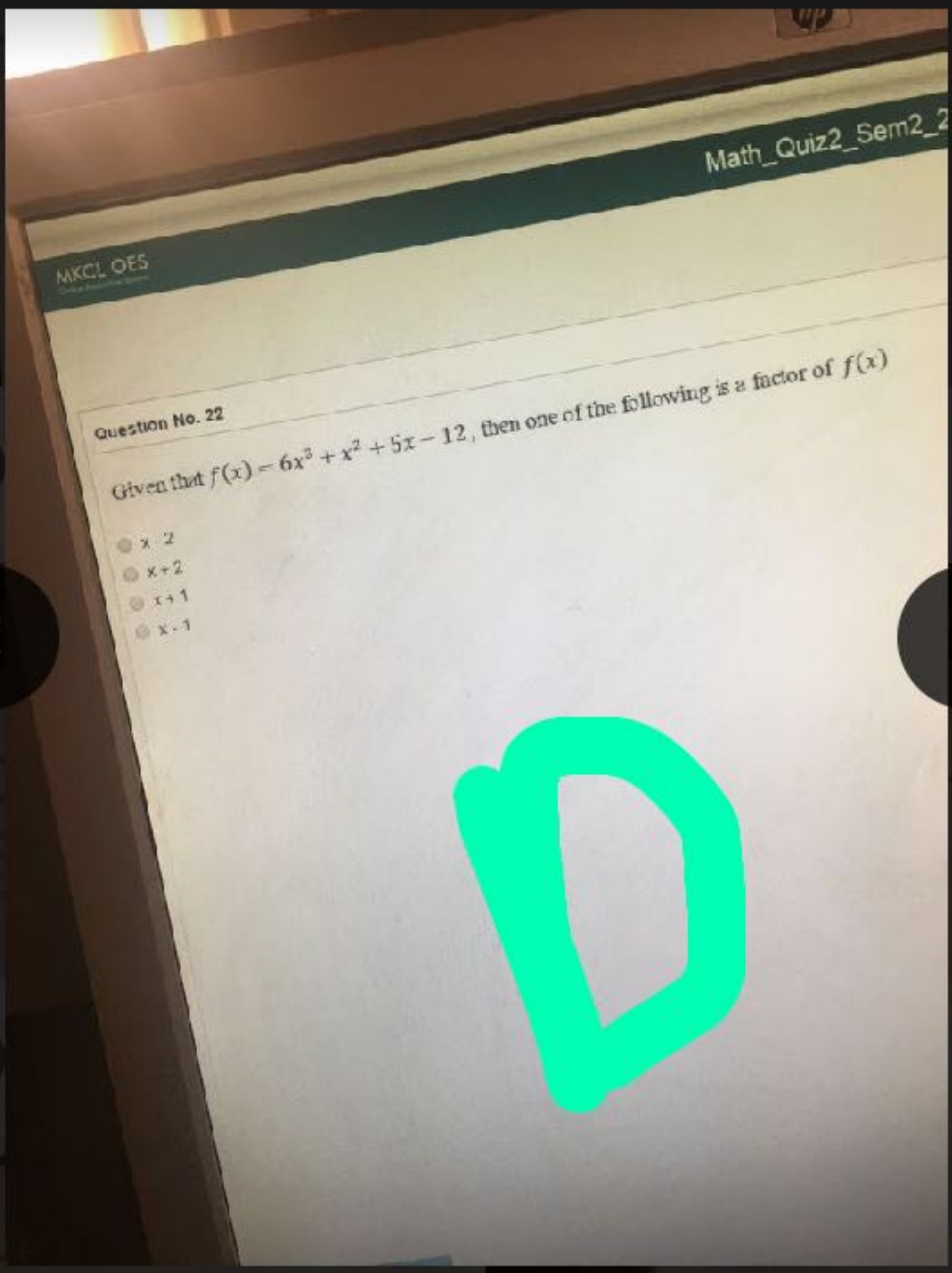
Math

Question No. 18

The remainder of the division $(x^4 + x^2 + x + 2) \div (x - 1)$ is

- 2
- 5
- 3
- 4

B



Question No. 6

The domain of $f(x)=\dfrac{x^2-2x+1}{x+5}$ is

- $(-\infty,\infty)$
- $R\setminus\{5,1\}$
- $R\setminus\{5\}$
- $R\setminus\{-5\}$

D

Question No. 21

If x-4 is a factor of the polynomial f(x) then

- $f(-4) = 0$
- $f(0) = -4$
- $f(4) = 0$
- $f(0) = 4$

ج

حفظ الصورة

نسخ

MKCL OES

Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4}, 4\right)$
- $\left(-4, \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4, \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4}, \infty\right)$

A

Save & Next

HP LE1901w

Question No. 23

Which of the following functions is not one-to-one

- F={ (3,5), (6,0), (7,-2), (1,-5) }
- F={ (4,-3), (1,0), (5,-2), (1,3) }
- F={ (6,-3), (0,5), (4,-2), (1,-3) }
- F={ (-3,-2), (0,4), (3,2), (1,-5) }

C

Save & Next حفظ والتالي

MKCL OES

Question No. 3

Solve $x^2 + 6x < 7$

- $(-\infty, -7) \cup (1, \infty)$
- $(-7, 1)$
- $(-\infty, -1) \cup (7, \infty)$
- $(-1, 7)$

B

Save & Next

MKCL OES

Question No. 18

The quotient of the division $(x^3 + 3x^2 - x + 1) \div (x + 2)$ is

- $x^2 - x - 3$
- $x^2 + x - 3$
- $x^2 + x + 3$
- $x^2 - x + 3$

B

Save & Next

Question No. 17

The graph of $f(x) - 2(x+1)^2 - 3$ is

- Open up
- Open right
- Open left
- Open down

A

Save & Next

HP LE1901w

Question No. 16

What is the equation of the quadratic function $y = x^2 + 24x + 29$ in vertex form?

- $y = (x + 12)^2 - 115$
- $y = (x - 12)^2 - 115$
- $y = (x - 12)^2 - 173$
- $y = (x + 12)^2 - 173$

Save & Next

A

stion No. 2

Determine the solution set of the following inequality

$$-4 - x < -x$$

- $S = (4, \infty)$
- $S = (-\infty, -4)$
- $S = \phi$
- $S = (-\infty, \infty)$

D

Question No. 25

The inverse of $f(x)=\frac{\sqrt[3]{x}-5}{2}$ is

- $f^{-1}(x)=(2x+5)$
- $f^{-1}(x)=\frac{1}{3}(2x+5)$
- $f^{-1}(x)=(2x+5)^3$
- $f^{-1}(x)=3(2x+5)$

Save & Next حفظ والتالي

Question No. 17

The graph of $f(x) = ax^2 + bx + c$ represents

- Circle
- Rectangle
- Square
- Parabola

D

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Question No. 1

Express this inequality in **interval notation** $x > 2$

- $(-\infty, 2)$
- $(2, \infty)$
- $(2, \infty]$
- $[2, \infty)$

B

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Question No. 4

The solution set of the following equation: $|16-5x|-2=3$ is

- $\left\{\frac{4}{5}, \frac{8}{5}\right\}$
- ϕ
- $\{4,7\}$
- $\left\{\frac{11}{5}, \frac{21}{5}\right\}$

D

Save & Next جمع وتالي

Question No. 25

The inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x-4}{3x-1}$, $x\neq\frac{1}{3}$.
- $f^{-1}(x)=\frac{5x+4}{x-1}$, $x\neq 1$.
- $f^{-1}(x)=\frac{5x+4}{3x-1}$, $x\neq\frac{1}{3}$.
- $f^{-1}(x)=\frac{x+4}{3x-1}$, $x\neq\frac{1}{3}$.

C

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Question No. 12

If $f(x) = x^2 + 6$ and $g(x) = \frac{x+8}{x}$, find $(g \circ f)(-7)$

- $-\frac{55}{7}$
- $\frac{295}{49}$
- $\frac{384}{7}$
- $\frac{63}{55}$

D

Question No. 5

The Solution set of $-2|x-7| \leq -28$ is

- $-7 \leq x \leq 21$
- $(-\infty, \infty)$
- $(-\infty, -7] \cup [21, \infty)$
- $\emptyset$

C

Question No. 7

If $f(x) = -\sqrt{2}x$ then $f(x)$ is

- decreasing
- increasing
- constant
- not defined

A

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Question No. 7

If $f(x) = -\sqrt{2}x$ then $f(x)$ is

- decreasing
- increasing
- constant
- not defined

A

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Question No. 7

If $f(x) = -\sqrt{2}$ then $f(x)$ is

- decreasing
- increasing
- constant
- not defined

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Question No. 23

The range of the inverse of G = { (-1,0), (0,9), (8,6), (-9,5)} is

- { -1, 0, 8, 9 }
- { -1, 0, 5, -9 }
- { -1, 0, 8, -9 }
- { -1, 1, 8, -9 }

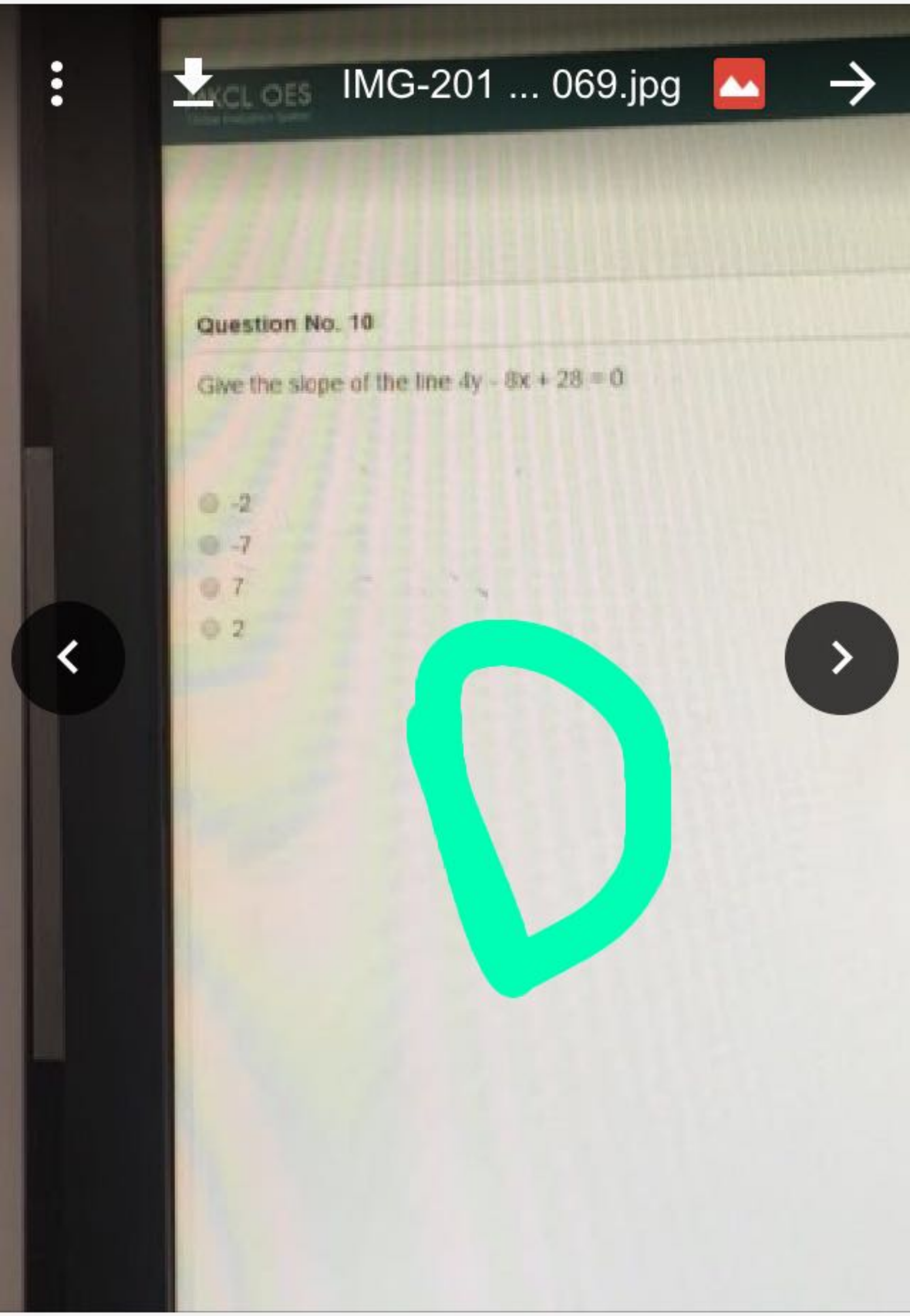
C

Question No. 7

The function $f(x)$ is decreasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) = f(x_2)$,
- if $x_1 > x_2$, then $f(x_1) > f(x_2)$,
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$,
- if $x_1 < x_2$, then $f(x_1) > f(x_2)$,

D



Question No. 20

If 'a' is a real number then the remainder of the div
$(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 2
- a + 5
- a + 3
- a + 4

A

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Question No. 10

The slope of the horizontal line is

- Undefined
- 0
- 1
- -1

B

Question No. 6

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+8a+4$
- a^4+2a^2-1
- a^2+2a-1
- $3a^2+2a-1$

A

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Math_Quiz2_Se

Question No. 19

If $f(x)$ is a polynomial such that $f(5) = -7$ then the remainder of the division $f(x) \div (x-5)$ equals:

- -7
- 5
- 7
- -5

A

Question No. 24

Which of the following functions is not one-to-one

- $f(x)=\sqrt{81-x^2}$
- $f(x)=8+16x$
- $f(x)=-2x+5$
- $f(x)=x$

A

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Question No. 5

The Solution set of $|7x-8|+8<1$ is

- $\left(-\infty, \frac{1}{7}\right) \cup \left(\frac{15}{7}, \infty\right)$
- $\emptyset$
- $\left(-\infty, \frac{1}{7}\right)$
- $(1, 15)$
- $\left(\frac{1}{7}, \frac{15}{7}\right)$

A

Save & Next

Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4}, 4\right)$
- $\left(-4, \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4, \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4}, \infty\right)$

A

Save & Next

HP LE1901w

Question No. 8

The domain of $f(x)=\frac{1}{\sqrt{x^2-1}}$ is

- $(-1,1)$
- $(-\infty,1)\cup(1,\infty)$
- $(-\infty,-1)\cup(1,\infty)$
- $(-\infty,-1)\cup(-1,\infty)$

C

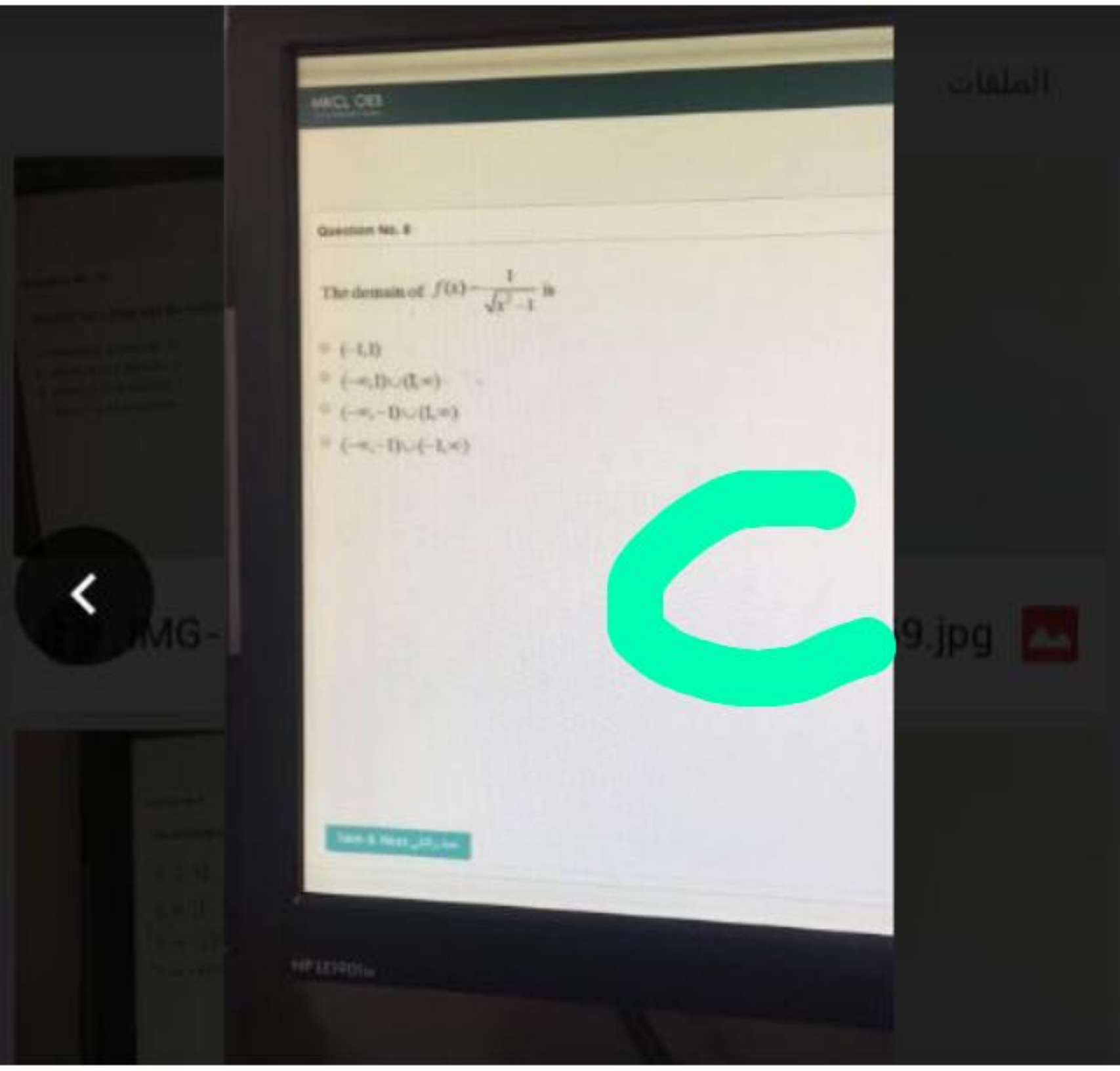
Save & Next

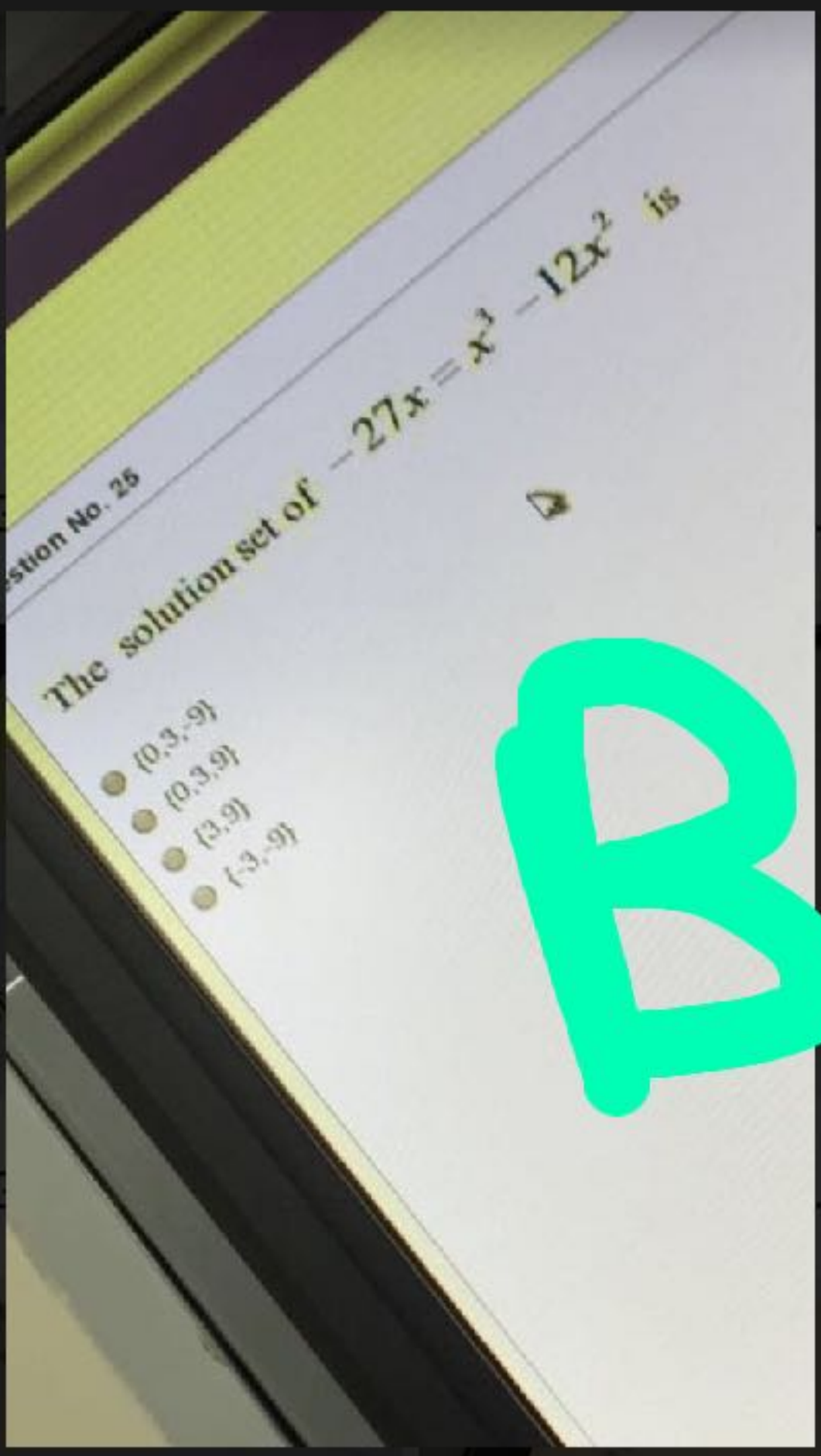
Question No. 15

Identify the vertex and the y-intercept of the graph of the function $y = 3(x+2)^2 - 5$

- vertex:(2,5); y-intercept: 12
- vertex:(-2,5); y-intercept: -1
- vertex: (2,-5); y-intercept: 7
- vertex:(-2,-5); y-intercept: 7

D





Simplify $\frac{x^{-1}+y^{-1}}{1-x^{-1}}$

- $\frac{x+1}{x-1}$
- $\frac{x+y}{y(x-1)}$
- $\frac{x+y}{x-1}$
- $\frac{x+y}{xy-1}$

B

estion No. 15

nd the equation of the quadratic function that has a verte has the point (-3,-5) on its graph.

- $f(x) = -x^2 - 8x - 20$
- $f(x) = -x^2 + 4x - 4$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = x^2 + 8x - 4$

A

Question No. 19

The degree of the quotient of the division $(2x^9 - 4x^3 + 6x - 5) \div (x - 3)$ equals:

- 8
- 9
- 6
- 7

A

Question No. 9

Compute the slope of the line through the points $(-5, -1)$ and $(-3, -10)$.

- $\frac{2}{9}$
- $-\frac{2}{9}$
- $\frac{9}{2}$
- $-\frac{9}{2}$

Question No. 16

The function $f(x) = 2(x-3)^2 - 3$ can be written as

- $f(x) = 2x^2 - 12x + 15$
- $f(x) = 2x^2 - 6x + 15$
- $f(x) = 2x^2 - 12x - 21$
- $f(x) = 2x^2 - 12x + 6$

A

Question No. 15

Find the domain and the range of the function $f(x) = (x+8)^2 - 7$

- Domain:$(-\infty, \infty)$;range:$[-7, \infty)$
- Domain:$(-\infty, \infty)$;range:$(-8, \infty)$
- Domain:$(-8, \infty)$;range:$(-\infty, \infty)$
- Domain:$(-7, \infty)$;range:$(-\infty, \infty)$

A

stion No. 15

What is the equation of the quadratic function $y = x^2 + 24x + 29$ in vertex form?

- $y = (x - 12)^2 - 173$
- $y = (x + 12)^2 - 115$
- $y = (x + 12)^2 - 173$
- $y = (x - 12)^2 - 115$

B

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Question No. 22

Given that $f(x) = 5x^3 + x^2 + 3x + 7$, then one of the following is a factor of $f(x)$

- x + 2
- x - 1
- x + 1
- x - 2

C

Question No. 24

Let f be the one-to-one function defined by this set of ordered pairs {(-3,2), (4,5),(7,4),(10,19)}.
Then $f^{-1}(5) =$

- 4
- $\frac{1}{4}$
- $\frac{1}{5}$
- 5

A

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Question No. 10

The line through the point (-1,-3) with slope equal to zero is

- y = -3
- x = -3
- x = -1
- y = -1

A

Question No. 13

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x) = -\frac{1}{x-7}$
- $(f-g)(x) = \frac{-x+23}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+7}{(x-2)(x+5)}$

b

Question No. 14

If $f(x)=\sqrt{x+2}$ and $g(x)=3x-5$. Find $h(x)=(f\circ g)(x)$

- $h(x)=\sqrt{3x+3}$
- $h(x)=3\sqrt{x-1}$
- $h(x)=\sqrt{3x-3}$
- $h(x)=3\sqrt{x+2}-5$

C

uestion No. 17

The graph of $f(x) = 2(x+1)^2 - 3$ is

- Open left
- Open up
- Open down
- Open right

B

Question No. 9

Give the y-intercept of the line $-5x+y=-3$

- 3
- -3
- 5
- -5

ب

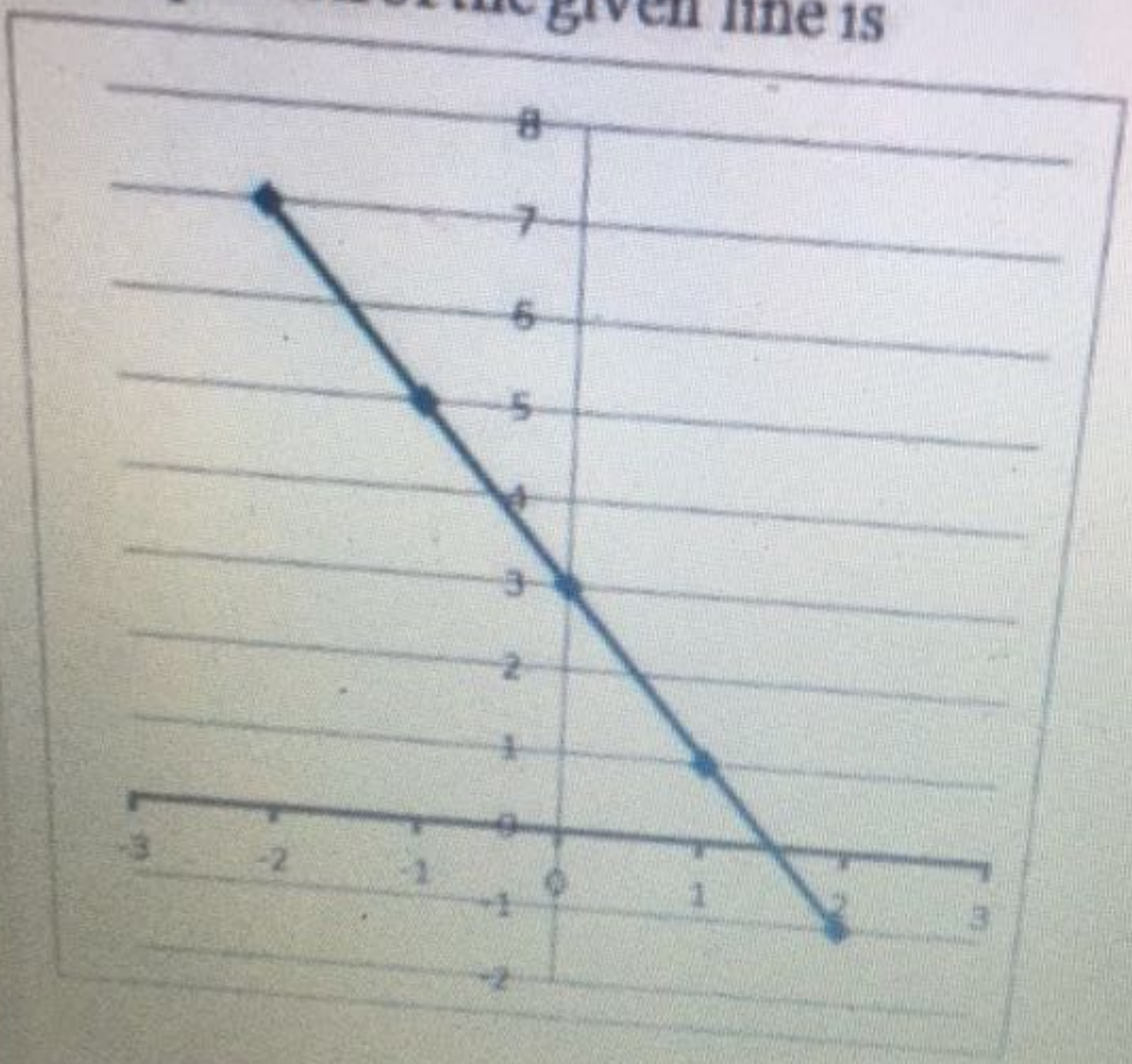
Question No. 12

Find $f(x)+g(x)$ and its domain, where $f(x)=4x+7$ and $g(x)=5x^2$

- $4x+7-5x^2$; domain $(-\infty,\infty)$
- $\frac{4x+7}{5x^2}$; domain $(-\infty,\infty)$
- $4x+7+5x^2$; domain $(-\infty,\infty)$
- $20x^3+35x$; domain $(-\infty,\infty)$

Question No. 10

The equation of the given line is



a. $y = -2x - 1$

b. $y = 2x - 3$

c. $y = 2x + 3$

d. $y = 2x + 1$

C

Question No. 9

Which line has a negative slope?

A

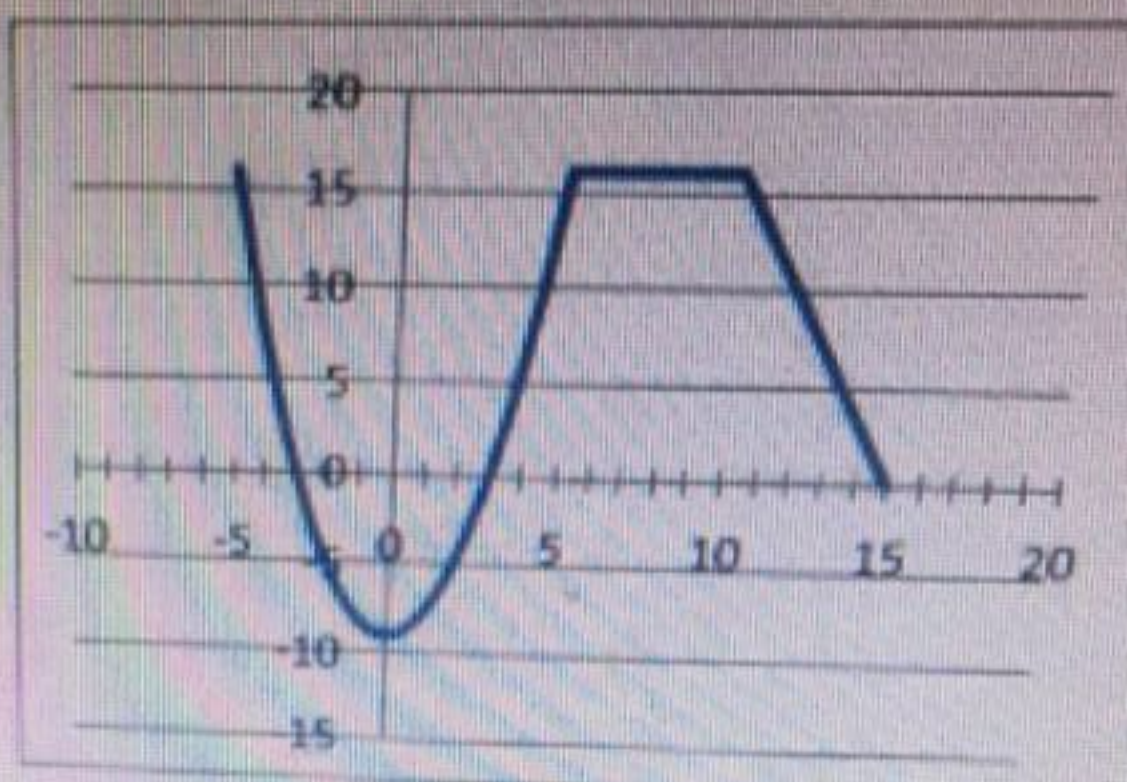
Question No. 19

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-1)$ equals 6 then

- $f(6) = -1$
- $f(1) = 6$
- $f(-1) = 6$
- $f(6) = 1$

B

The function in the given figure is



- increasing on the interval $[0,5]$
- increasing on the interval $[-9,16]$
- decreasing on $[-5,15]$
- constant on the interval $[0,10]$

B

Question No. 10

Give the y-intercept of the line $3y - x = 0$

- 3
- 1
- 0
- -3

C

Question No. 7

If f(x) = 3x then f(x) is

- Not defined
- Increasing
- Constant
- Decreasing

b

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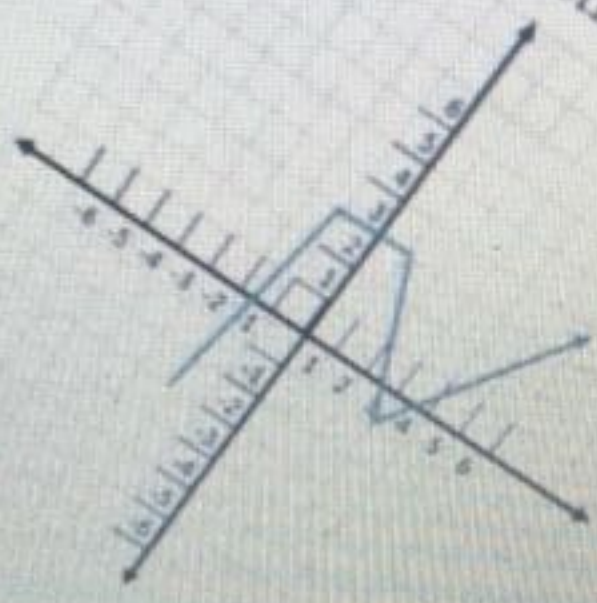
estion No. 8

Identify the intervals where this function is decreasing



- $(3,\infty) \cup (-2,-1)$
- $(-1,1)$
- $(1,3)$
- $(-\infty,-1)$

C

Question No. 1

If $a \geq b$ and c is a real number

- $a+c<b+c$
- $a+c \leq b+c$
- $a+c \geq b+c$
- $a+c>b+c$

C

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Question No. 7

The function $f(x)$ is constant on an interval I if for $x_1, x_2 \in I$,

- if $x_1 \neq x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) > f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$.
- if $x_1 > x_2$, then $f(x_1) > f(x_2)$.

A

tion No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- Nine x-intercepts
- One x-intercept
- Two x-intercepts
- No x-intercept

B

Question No. 4

Solve $-10|x+3| + 7 = -103$

- {8,-12}
- {6,14}
- {8,-14}
- {7,-14}

C

Question No. 6

The domain of $f(x)=\sqrt[3]{x-7}$ is

- $R\setminus\{7\}$
- $(-\infty,\infty)$
- $(7,\infty)$
- $[7,\infty)$

D

Question No. 2

Determine the solution set of the following inequality

$$4 < \frac{-4-2x}{5} < 10$$

- s=[-27,-12]
- s=(12,27)
- s=(-27,-12)
- s=(-12,27)

C

Question No. 19

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x+4)$ equals 10 then

- $f(4) = 10$
- $f(10) = 4$
- $f(10) = -4$
- $f(-4) = 10$

D

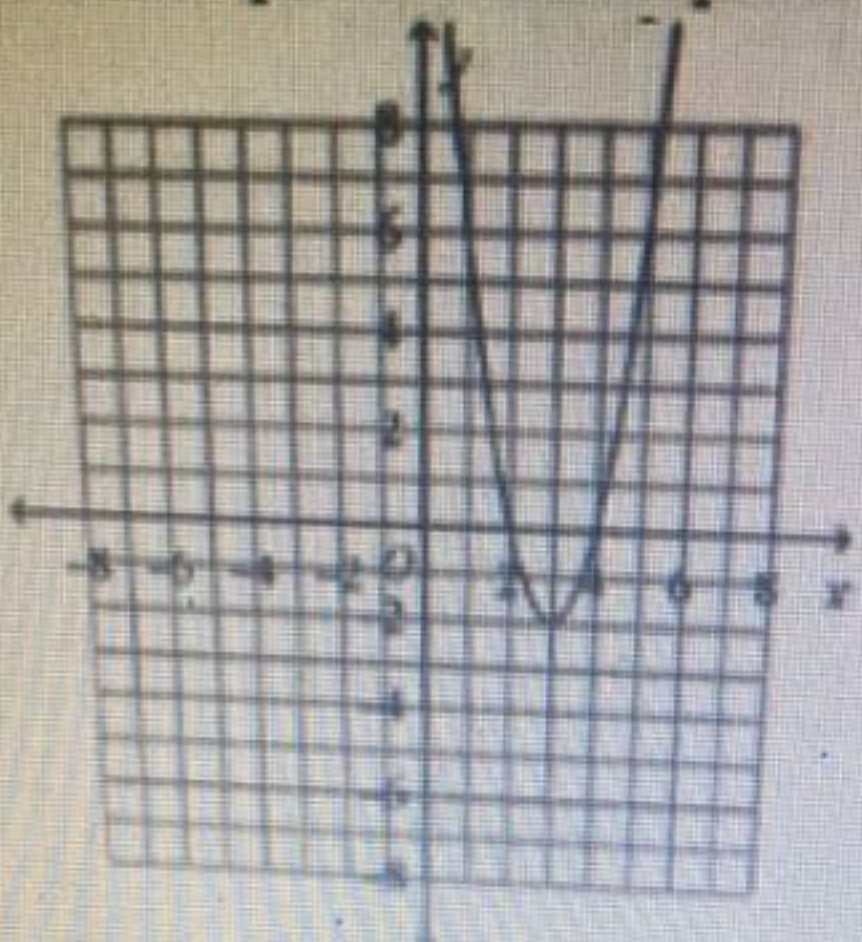
Question No. 21

If x+1 is a factor of the polynomial f(x) then

- $f(0) = -1$
- $f(0) = 1$
- $f(1) = 0$
- $f(-1) = 0$

D

Write the equation of this parabola in vertex form.



$y = 2(x + 3)^2 + 2$

$y = (x - 3)^2 - 2$

$y = 2(x + 3)^2 - 2$

$y = 2(x - 3)^2 - 2$

D

Question No. 13

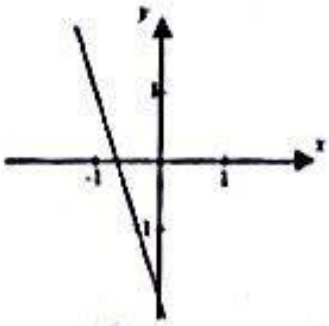
The Solution set of $|4+8x| > -20$ is

- $(-\infty, -3) \cup (2, \infty)$
- $(-\infty, \infty)$
- $(2, \infty)$
- $\emptyset$

Question No. 17

The slope of a linear function is 3 and its y-intercepts is -2.
Which graph represents this function?

I



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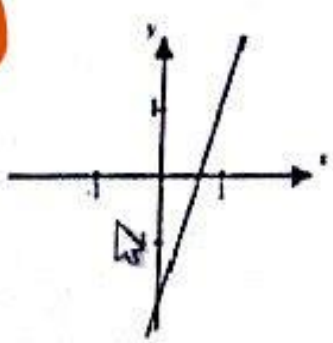
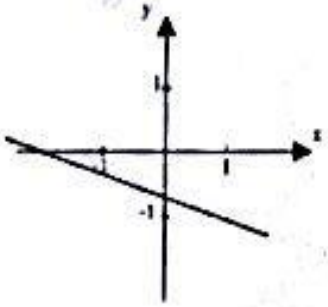
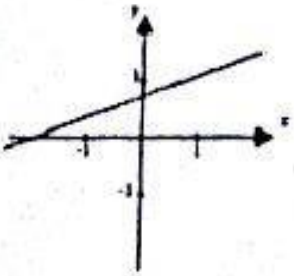


III



IV



- II
- III
- IV
- I

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Question No. 26

Let $f(x)$ be a one-to-one function, then $g(x)$ is the inverse function of $f(x)$ if

- $(fog)(x) = x$ only
- $(fog)(x) \neq x$ and $(gof)(x) \neq x$
- $(fog)(x) = x$ and $(gof)(x) = x$
- $(fog)(x) \neq x$ only

Question No. 26

Which of the following functions is one-to-one

- $f(x) = -2x^2 + 5$
- $f(x) = \sqrt{16 - x^2}$
- ✓ $f(x) = -2x + 5$
- $f(x) = 5x^2 - 1$

Question No. 9

The quotient $\frac{2}{-i}$ can be written as

- 1
- 2i
- -2i
- -1

$$\frac{2}{-i} \cdot \frac{i}{i} = \frac{2i}{-i^2}$$

$$= \frac{2i}{-(-1)} = 2i$$

Save & Next

Question No. 18

Find $\frac{f(x)}{g(x)}$ and its domain , where $f(x) = 3x - 6$, $g(x) = x - 2$

- 1; all real numbers
- 3; all real numbers
- ✓ 3; all real numbers except x = 2
- -3; all real numbers except x = 3

$$\frac{3x-6}{x-2} = \frac{3(x-2)}{x-2}$$

$$= 3$$

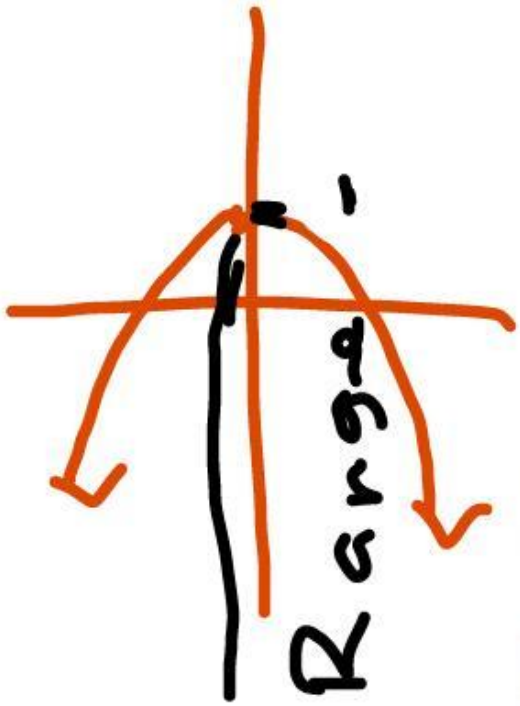
Domain: $x - 2 \neq 0$

$$x \neq 2$$

Question No. 20

The range of the function $f(x) = -x^2 + 1$ is

- $[1, \infty)$
- $(-\infty, -1]$
- $(-\infty, 1]$
- $[-1, \infty)$



$(-\infty, 1]$

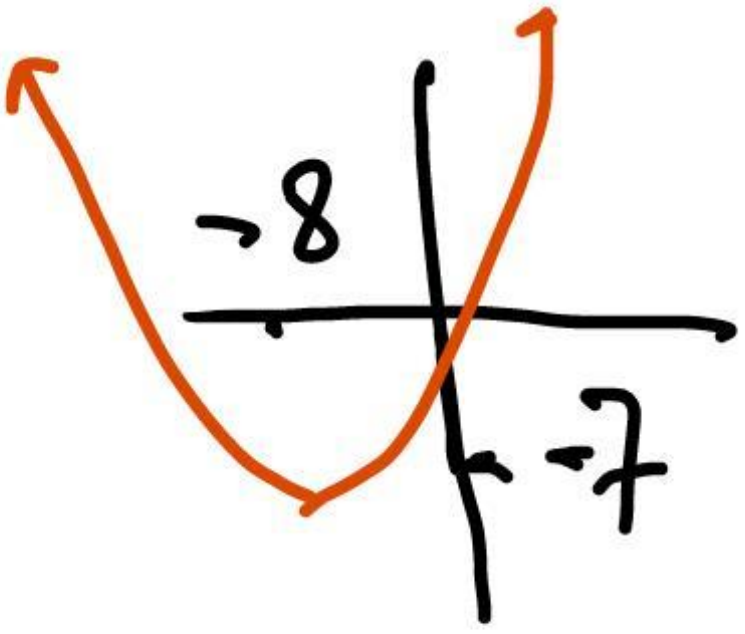
Question No. 19

Find the domain and the range of the function $f(x) = (x + 8)^2 - 7$

- Domain $(-8, \infty)$ range $(-\infty, \infty)$
- Domain $(-\infty, \infty)$ range $[-7, \infty)$
- Domain $(-\infty, \infty)$ range $(-8, \infty)$
- Domain $(-7, \infty)$ range $(-\infty, \infty)$

Vertex

$(-8, -7)$



Domain

$(-\infty, \infty)$

Range

$[-7, \infty)$

Question No. 21

The interval where the graph of $f(x) = x^2 + 2x - 3$ decreases is

- [-1,∞)
- (-∞,∞)
- (-∞,-1]
- [-3,∞)

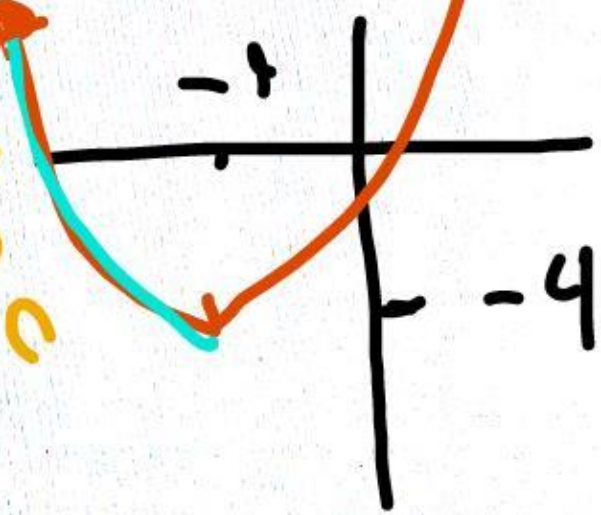
vertex (h, k)

$h = \frac{-b}{2a} = \frac{-2}{2} = -1$

$k = f(-1) = -4$

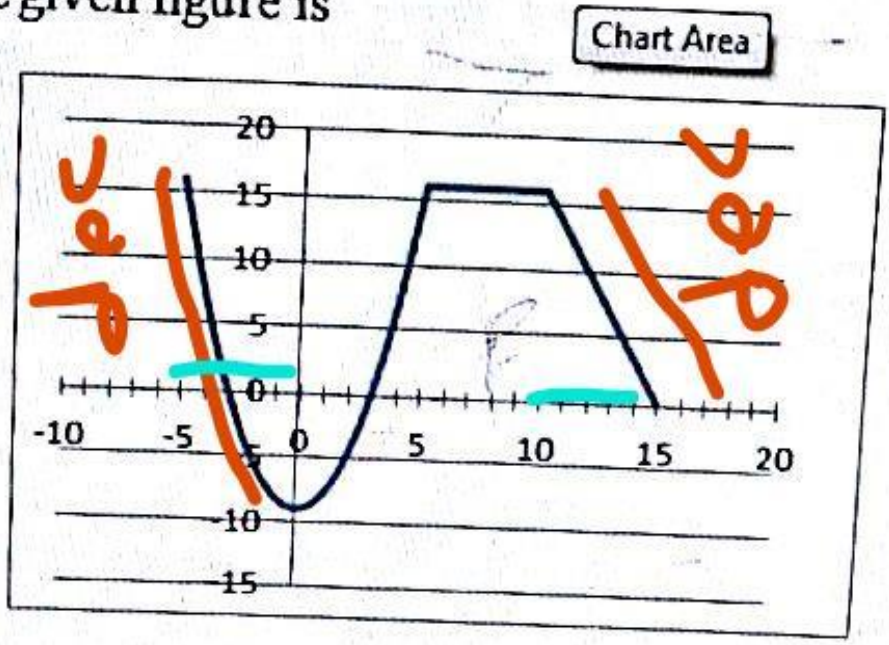
$(-1, -4)$

$(-\infty, -1]$



Question No. 15

The function in the given figure is



- increasing on the interval $[0,10]$
- constant on the interval $[5,15]$
- decreasing on $[-5,0] \cup [10,15]$
- decreasing on the interval $[-9,16]$

Question No. 18

If $f(x) = \frac{1}{x}$ and $g(x) = x + 2$, what is $g(f(4))$?

- $\frac{1}{6}$
- $\frac{9}{4}$
- $\frac{25}{4}$
- $\frac{3}{2}$

$g(f(4)) = g\left(\frac{1}{4}\right)$

$= \frac{1}{4} + 2$

$= \frac{1 + 8}{4} = \frac{9}{4}$

Question No. 14

The domain of $f(x) = \sqrt{4x}$ is

- $(0, \infty)$
- $R \setminus \{4\}$
- $(-\infty, \infty)$
- ✓ $[0, \infty)$

$4x \geq 0$

$x \geq 0$

$[0, \infty)$

Question No. 30

The solution of the exponential equation $\left(\frac{1}{2}\right)^{2x} = 64$ is

- $x = \frac{1}{3}$
- $x = 3$
- $x = \frac{-1}{3}$
- ✔ $x = -3$

$2^{-2x} = 2^6$

$-2x = 6$

$x = \frac{-6}{2}$

$x = -3$

Question No. 8

The solution set of the equation $\frac{1}{15}(2x+5)=\frac{x+2}{9}$ is

- {7}
- {5}
- {-5}
- {-7}

$$9(2x+5)=15(x+2)$$

$$18x+45=15x+30$$

$$18x-15x=30-45$$

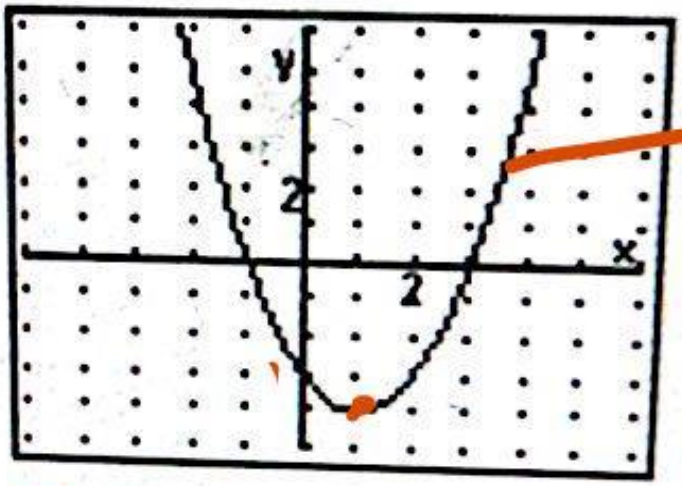
$$3x=-15$$

$$x=\frac{-15}{3}=-5$$

Save & Next

Question No. 19

Which is the equation for this graph?



- $y = x^2 - 2x - 3$
- $y = -x^2 - 2x - 4$
- $y = -x^2 + 2x + 4$
- $y = -x^2 - 4$

Question No. 30

The solution of the exponential equation $\left(\frac{3}{2}\right)^{2x+1} = \frac{4}{9}$ is

- ✓ $x = \frac{-3}{2}$
- $x = \frac{4}{9}$
- $x = \frac{1}{2}$
- $x = \frac{3}{2}$

$$\left(\frac{3}{2}\right)^{2x+1} = \left(\frac{3}{2}\right)^{-2}$$

$$2x+1 = -2$$

$$2x = -2-1$$

$$2x = -3$$

$$x = \frac{-3}{2}$$

Save & Next حفظ والتالي

MKCL OES

Question No. 16

The slope of the line x= -3 is

- -1
- Undefined
- 1
- 0

vertical line

خط راسی میلان نہ معرف

Question No. 28

The range of the function $f(x) = -2^{x+1}$ is

- $(-\infty, 0)$
- $(0, \infty)$
- $(-2, \infty)$
- $(2, \infty)$

Question No. 17

Write the equation of the line passes through (–5,6), and prependicular to the line x = -2

- -5x + 6y = -2
- x = -5
- y = 6
- 5x + 6y = 2

خط رأسي

العمودي عليه هو

خط أفقي

y = 6

Question No. 19

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its graph.

- $f(x) = x^2 + 8x - 4$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = -x^2 + 4x - 4$
- $f(x) = -x^2 - 8x - 20$

$f(x) = a(x-h)^2 + k$

$= a(x+4)^2 - 4$

$f(-3) = a(-3+4)^2 - 4$

$-5 = a - 4 \Rightarrow a = -1$

$f(x) = -x^2 - 8x - 16 - 4$

Question No. 15

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x) = -\frac{1}{x-7}$
- $(f-g)(x) = \frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+23}{(x-2)(x+5)}$

$$\frac{3}{x-2} - \frac{4}{x+5}$$

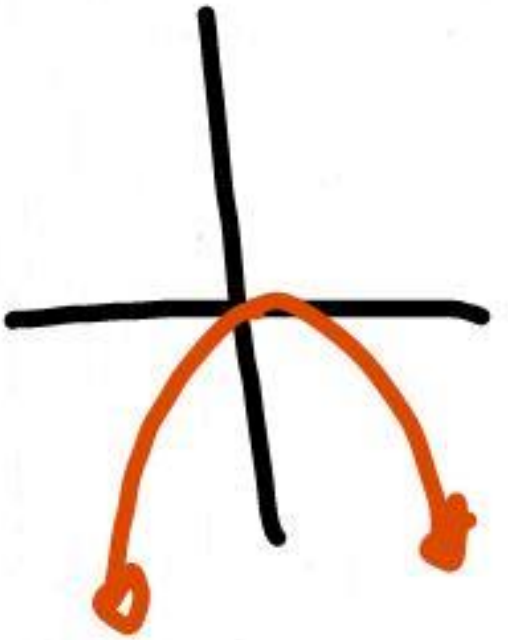
$$= \frac{3(x+5) - 4(x-2)}{(x-2)(x+5)}$$

$$= \frac{3x+15-4x+8}{(x-2)(x+5)}$$

Question No. 10

The range of $f(x) = -x^2$ is

- $(-\infty, -1]$
- $(0, \infty)$
- $(-\infty, 0]$
- $[-1, \infty)$



Question No. 27

The inverse of $f(x) = (5x-1)^3$ is

- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}+1)$
- $f^{-1}(x) = 5(\sqrt[3]{2x}-1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{2x}+1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}-1)$

$y = (5x-1)^3$

$x = (5y-1)^3$

$\sqrt[3]{x} = 5y - 1$

$5y = \sqrt[3]{x} + 1$

$y = \frac{1}{5}(\sqrt[3]{x}+1)$

Question No. 16

If $f(x) = \sqrt{x+2}$ and $g(x) = 3x - 5$. Find $h(x) = (f \circ g)(x)$

- $h(x) = \sqrt{3x-3}$
- $h(x) = 3\sqrt{x-1}$
- $h(x) = \sqrt{3x+3}$
- $h(x) = 3\sqrt{x+2} - 5$

$$f \circ g(x) = f(g(x))$$

$$= f(3x-5)$$

$$= \sqrt{3x-5+2}$$

$$= \sqrt{3x-3}$$

Question No. 28

The range of the function $f(x) = 1 + 2^{5x}$ is

- $(0, \infty)$
- $(1, \infty)$
- $(2, \infty)$
- $(-\infty, \infty)$

Question No. 25

A function $f(x)$ is one-to-one if

- $a = b \Rightarrow f(a) \neq f(b)$
- $f(a) = f(b) \Rightarrow a \neq b$
- $a \neq b \Rightarrow f(a) \neq f(b)$
- $a \neq b \Rightarrow f(a) = f(b)$

MKCL OES

Online Evaluation System

Question No. 12

Give the slope of the line $4y - 8x + 28 = 0$

- -7
- -2
- 7
- ✓ 2

$4y = 8x - 28$

$y = \frac{8}{4}x - \frac{28}{4}$

$= 2x - 7$

↳ slope

Question No. 29

The horizontal asymptote to the graph of $f(x) = 2^x - 3$.

- $x = -2$
- $y = 3$
- $y = -3$
- $x = 2$

$y =$ عدد

Question No. 7

The Solution set of $|2x| - 18 \geq -12$ is

- ∅
- $(-\infty, \infty)$
- $(-\infty, -3) \cup (3, \infty)$
- (-3,3)

$|2x| > -12 + 18$

$|2x| > 6$

$2x > 6$ or $2x < -6$

$x > 3$, $x < -3$

Question No. 2

The roots of $(m + 5)(m + 6) =$ are

- $m = 8, m = 3$
- ✓ $m = -8, m = -3$
- $m = 1, m = 0$
- $m = -5, m = -6$

$$m^2 + 5m + 6m + 30 - 6 = 0$$

$$m^2 + 11m + 24 = 0$$

$$(m+8)(m+3) = 0$$

$$m = -8 \text{ , } m = -3$$

Maths Sem2 Q2 2015-16

MKCL QES

Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- $[0, \infty)$
- $[-3, 1)$
- $[-\frac{1}{3}, 1)$
- all real numbers

Save & Next

معكوس الدالة الخطية هو دالة خطية ، مجال الدالة الخطية R

Question No. 6

Solve $|x| - 7 = -5$

- {12}
- {2}
- No Solution ✓
- {2,-2}

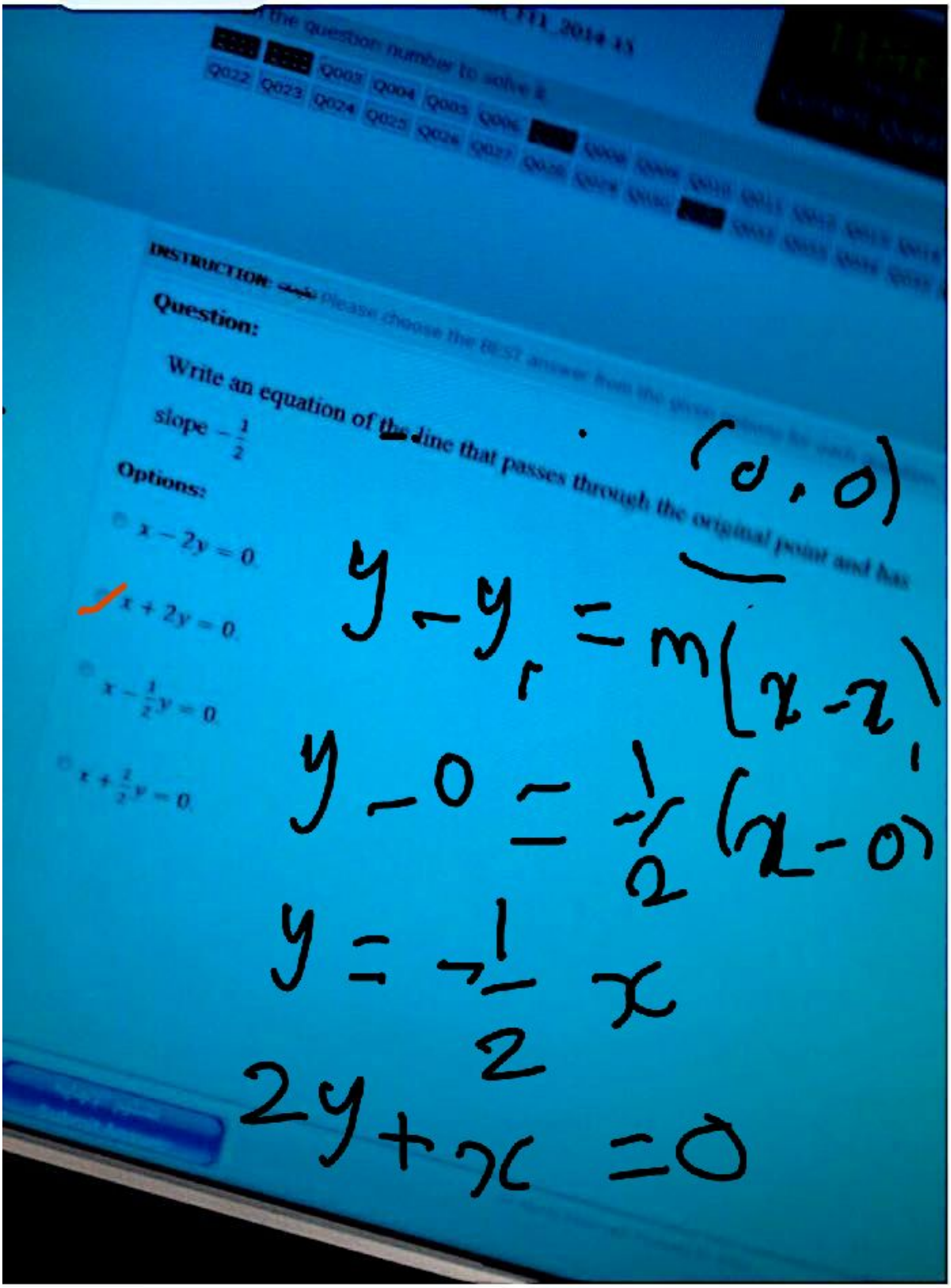
$$|x| = -5 + 7$$

$$|x| = 2$$

$$x = 2 \text{ or}$$

$$x = -2$$

22 of 54



MKCL OES
Online Evaluation System

Question No. 12

Give the slope of the line $4y - 8x + 28 = 0$

- -7
- -2
- 7 ✓
- 2

$$4y = 8x - 28$$

$$y = \frac{8}{4}x - \frac{28}{4}$$

$$y = 2x - 7$$

slope

INSTRUCTION: Please choose the BEST answer from the given opt

Question:

Solve $\frac{1}{2}|2x+3|-1>1$

Options:

- $(-\infty,\infty)$
- $\emptyset$
- ✓ $(-\infty,-\frac{7}{2})\cup(\frac{1}{2},\infty)$
- $(-\infty,\frac{1}{2})\cup(\frac{7}{2},\infty)$

$|2x+3|>4$

$x>\frac{1}{2}$

or

$x<-\frac{7}{2}$

Question No. 22

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+2
- ✓ x^2+2x+4
- x^2+2x+5

2 | 1 0 0 -7

2 4 8

1 2 4 | 1

quotient

Question No. 17

Find the axis of symmetry of $y = 2(x - 5)^2 + 3$

- y = 3
- x = 3
- y = -3
- x = 5 ✓

$x = h$

$y = a(x - h)^2 + k$

Math_Qz3_Sec5.4_2014-15

Q01 Q02

INSTRUCTION: تعليمات Please choose the BEST answer from the given options for each question.

Question:

If (x+1) is a factor of the polynomial f(x) then

Options:

- f(-1)=0
- f(0)=-1
- f(1)=0
- f(0)=1

باستخدام نظرية العوامل

$f(k)=0$

$k=-1$

تسليم الإجابة

Submit Answer

INSTRUCTION: Please choose the BEST answer from the given options for each question.

Question:

Find the equation of the line with slope $m = \frac{2}{5}$ and passes through the point $P_1 = (2, -4)$.

Options:

- $y+4=\frac{2}{5}(x-2)$
- $y+4=\frac{2}{5}(x+2)$
- $y-4=\frac{2}{5}(x+2)$
- $y-4=\frac{2}{5}(x-2)$

$y - y = m(x - x_1)$

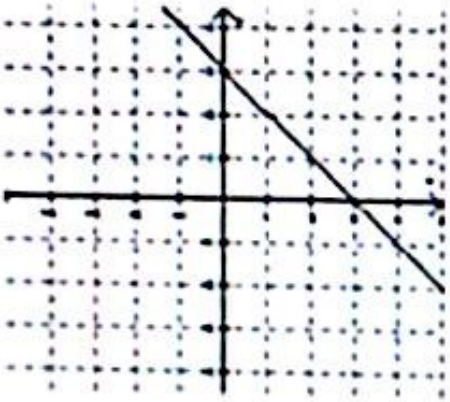
$y-(-4)=\frac{2}{5}(x-2)$

$y+4=\frac{2}{5}(x-2)$

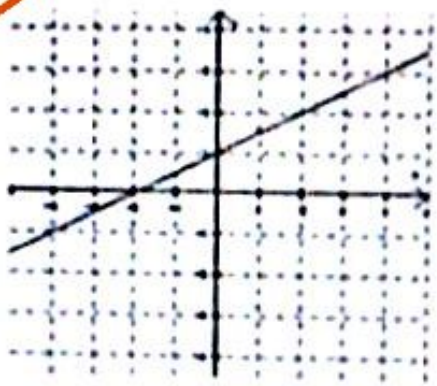
Question No. 11

Which graph has a positive slope?

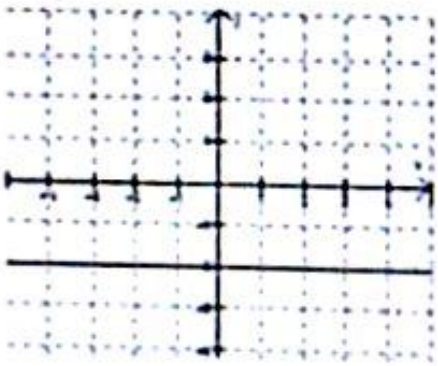
I



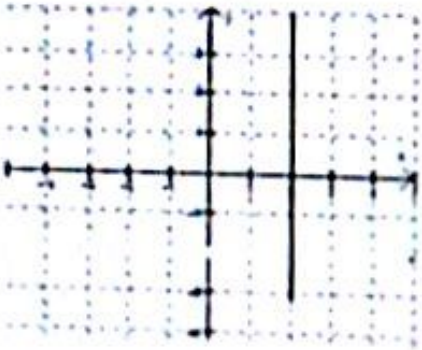
II



III



IV



- IV
- I
- III
- II

Question No. 25

A function is one-to-one if

- every horizontal line intersects the graph at most once
- every vertical line intersects the graph twice
- every vertical line intersects the graph at most once
- every horizontal line intersects the graph twice

Question No. 28

The range of the function $f(x) = 5^{4x}$ is

- $(5, \infty)$
- $(0, \infty)$
- $(-\infty, \infty)$
- $[4, \infty)$

Question No. 18

The function $f(x) = 2(x-3)^2 - 3$ can be written as

- $f(x) = 2x^2 - 12x + 6$
- $f(x) = 2x^2 - 12x - 21$
- ✓ $f(x) = 2x^2 - 12x + 15$
- $f(x) = 2x^2 - 6x + 15$

$$f(x) = 2(x^2 - 6x + 9) - 3$$

$$= 2x^2 - 12x + 18 - 3$$

$$= 2x^2 - 12x + 15$$

Question No. 19

The range of $f(x) = 4 - x^2$ is

- $(4, \infty)$
- $(-\infty, 4]$
- $(-\infty, \infty)$
- $(-\infty, 4)$

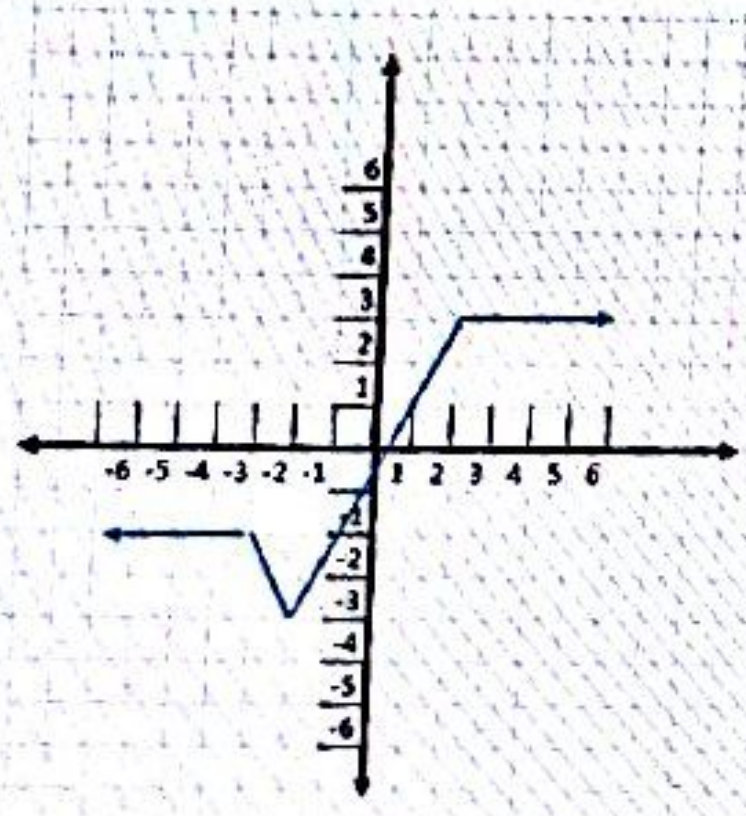
Question No. 3

If a>b and c is a real number, then

- $b-c<a-c$
- $b-c>a-c$
- $b-c \geq a-c$
- $b-c \leq a-c$

Question No. 10

.Identify the intervals where this function is increasing.



- $(-2,\infty)$
- $(-3,\infty)$
- $(-3,-2)$
- $(-2,2)$

Question No. 13

Which of the following is a horizontal line:

- $y = -\frac{1}{2}$
- $x = -13$
- $3y - 11x = 0$
- $5y - \frac{1}{2}x + 1 = 0$

Question No. 27

The inverse of $f(x) = \frac{x+4}{3x-5}$, $x \neq \frac{5}{3}$, is

(i) $f^{-1}(x) = \frac{5x-4}{x-1}$, $x \neq 1$.

(ii) $f^{-1}(x) = \frac{x+4}{3x-1}$, $x \neq \frac{1}{3}$.

(iii) $f^{-1}(x) = \frac{5x-4}{3x-1}$, $x \neq \frac{1}{3}$.

(iv) $f^{-1}(x) = \frac{5x+4}{3x-1}$, $x \neq \frac{1}{3}$.

$$y = \frac{x+4}{3x-5}$$

$$x = \frac{y+4}{3y-5}$$

$$y(3x-1) = 5x+4$$

$$y = \frac{5x+4}{3x-1}$$

INSTRUCTION: Please choose the BEST answer from the given options for each question.

Question:

The inverse of $f(x) = \frac{\sqrt[3]{x} - 5}{2}$ is

Options:

- $f^{-1}(x) = (2x + 5)$
- $f^{-1}(x) = \frac{1}{3}(2x + 5)$
- $f^{-1}(x) = 3(2x + 5)$
- ✓ $f^{-1}(x) = (2x + 5)^3$

$$y = \frac{\sqrt[3]{x} - 5}{2}$$

$$x = \frac{\sqrt[3]{y} - 5}{2}$$

$$\sqrt[3]{y} = 2x + 5$$

$$y = (2x + 5)^3$$

Question No. 23

If x-2 is a factor of the polynomial f(x) then

- $f(-2) = 0$
- ✓ $f(2) = 0$
- $f(0) = 2$
- $f(0) = -2$

$f(k) = 0$

$k = 2$

Question No. 29

The equation $y = 7^x$ can be written as

- $y = \log_{\frac{1}{7}} x$
- $x = \log_{\frac{1}{7}} y$
- $y = \log_7 x$
- ✓ $x = \log_7 y$

Instruction: make sure to choose the BEST answer from the given c

Question:

Simplify the expression $\sqrt{(x-10)^2}$

Options:

- $x - 10$
- $|x - 10|$
- $|x + 10|$
- $-x - 10$

$$\sqrt{(x-10)^2} = |x-10|$$

Question No. 29

The horizontal asymptote to the graph of $f(x) = 3^{x-1} + 2$.

- y = -2
- y = 3
- y = 2
- x = -2

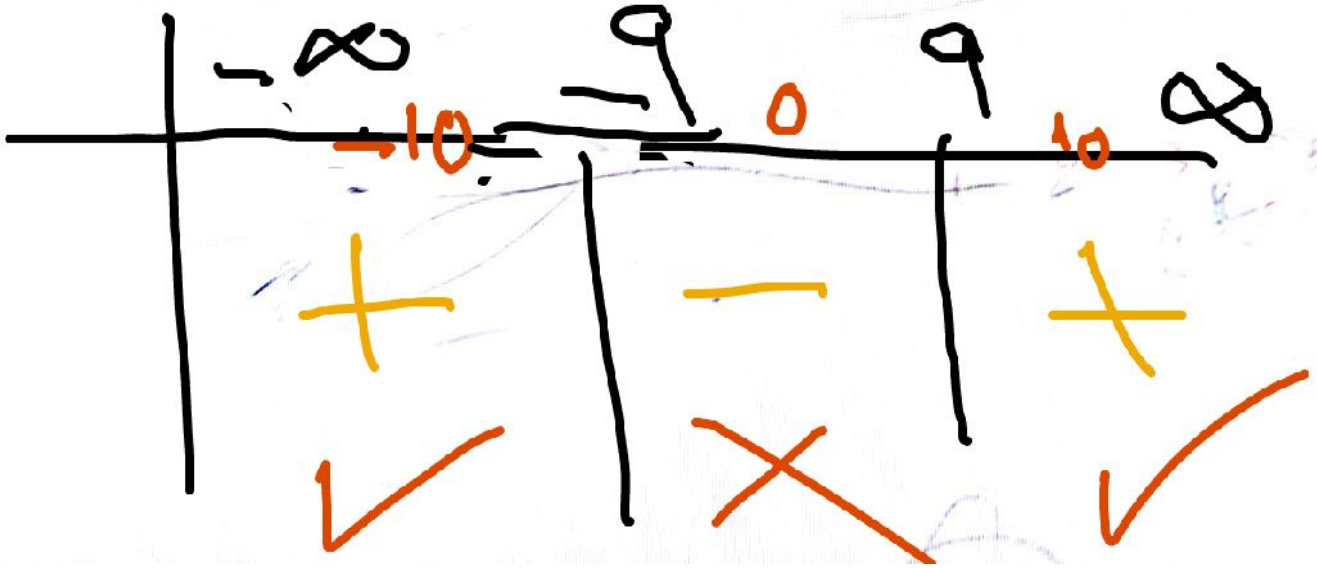
$y = 2$

Solve this quadratic inequality $x^2 - 81 \geq 0$

- $(-\infty, -9] \cup [9, \infty)$
- $-9 \leq x \leq 9$
- $-9 \leq x \geq 9$
- $[9, \infty)$

$x^2 = 81$

$x = \pm 9$



Question No. 21

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-5) = 2$
- $f(-2) = -5$
- $f(-5) = -2$
- ✓ $f(2) = -5$

$f(k) = r$

$k = 2 \quad r = -5$

Question No. 15

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the quotient of $f(x)$ and $g(x)$.

- $\left(\frac{f}{g}\right)(x) = \frac{3x+15}{4x-8}$
- $\left(\frac{f}{g}\right)(x) = \frac{4x-2}{3x+5}$
- $\left(\frac{f}{g}\right)(x) = \frac{3}{4(x-2)(x+5)}$
- $\left(\frac{f}{g}\right)(x) = \frac{3x+5}{4x-2}$

$$= \frac{3}{x-2} \div \frac{4}{x+5}$$

$$= \frac{3}{x-2} \times \frac{x+5}{4}$$

$$= \frac{3(x+5)}{4(x-2)}$$

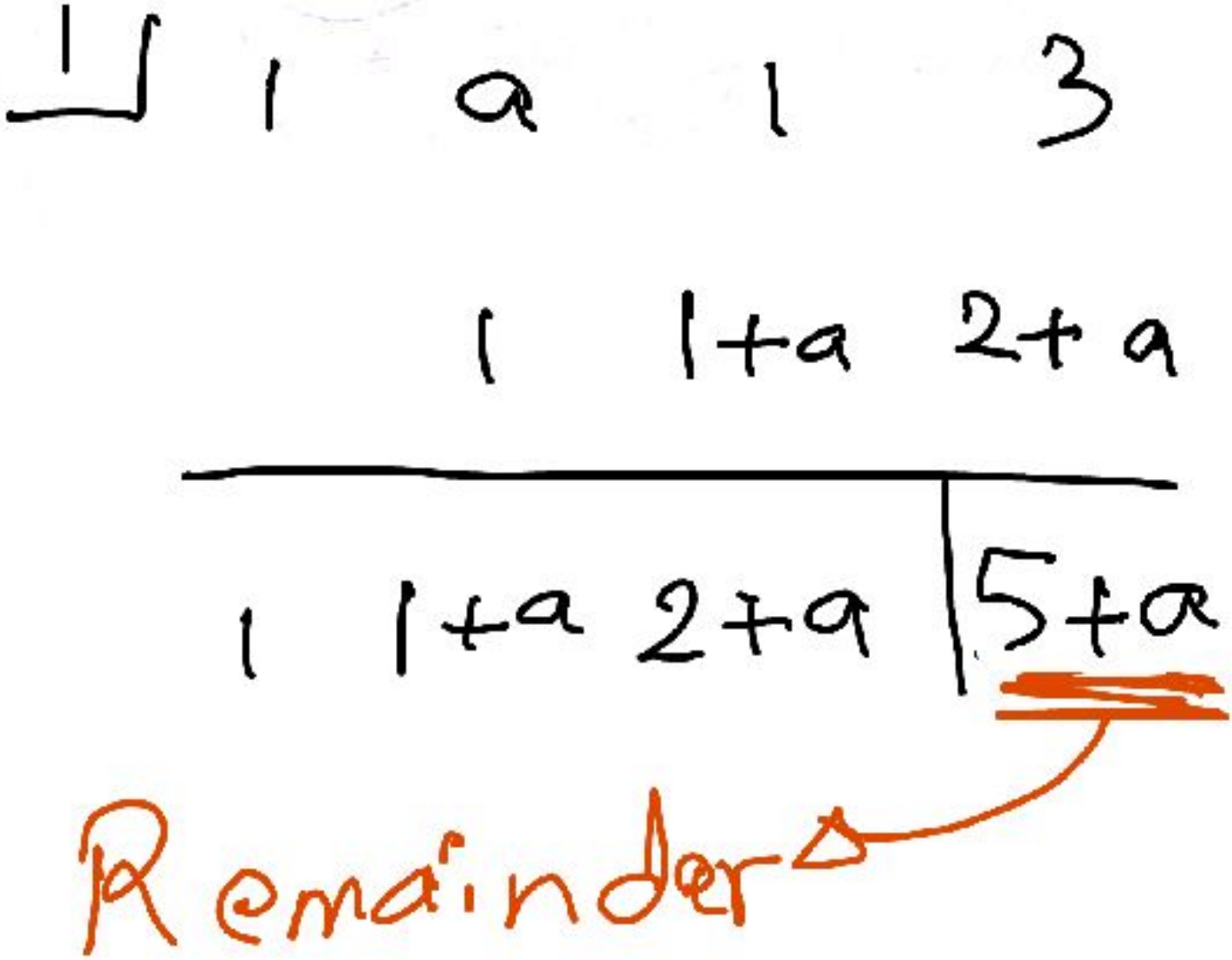
$$= \frac{3x+15}{4x-8}$$

Save & Next

Question No. 22

If 'a' is a real number then the remainder of the division $(x^3 + ax^2 + x + 3) \div (x - 1)$ is:

- a + 5
- a + 4
- a + 2
- a + 3



Question No. 29

The graph of $f(x) = -\left(\frac{1}{2}\right)^x$ is

① Constant

① Decreasing

② Increasing

① Decreasing and Increasing

Question No. 26

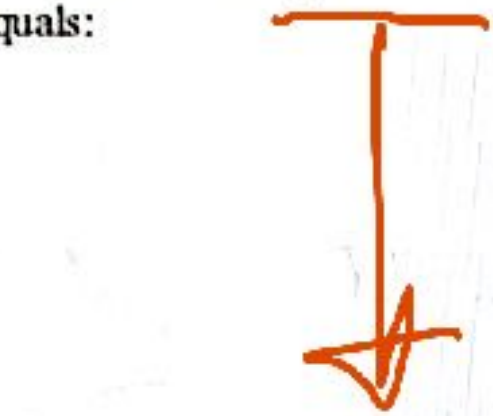
Let f be the one-to-one function defined by this set of ordered pairs $\{(-3,2), (4,5),(7,4),(10,19)\}$. Then $f^{-1}(5) =$

- 4
- 5
- $-\frac{1}{4}$
- $\frac{1}{5}$

Question No. 21

If $f(x)$ is a polynomial such that $f(2) = 3$ then the remainder of the division $f(x) \div (x - 2)$ equals:

- 3
- -3
- 2
- -2

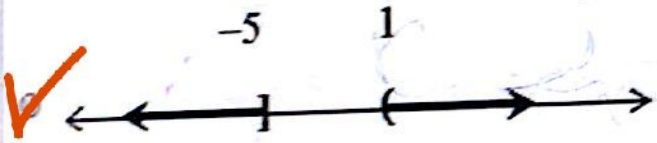


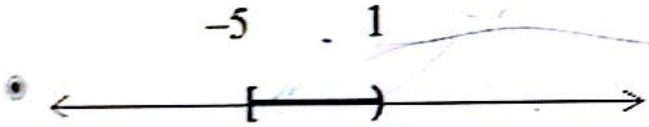
$f(k) = r$

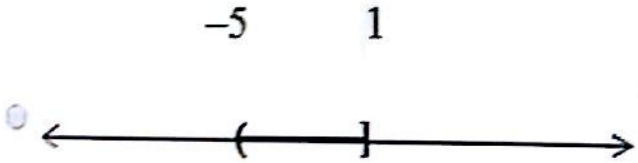
Save & Next

Question No. 4

Which of the following represent $x \leq -5$ or $x > 1$







Question No. 15

Simplify $\dfrac{(a+1)^{-1}-(a-1)^{-1}}{(a^2-1)^{-1}}$

- 2a
- 2
- -2
- -2a

$$= \frac{\frac{1}{a+1} - \frac{1}{a-1}}{\frac{1}{a^2-1}}$$

$$= \frac{\frac{(a-1)-(a+1)}{a^2-1}}{\frac{1}{a^2-1}} = -2$$

Question No. 9

If f(x) = 3x then f(x) is

- Not defined
- Increasing
- Constant
- Decreasing

INSTRUCTION: تعليمات Please choose the BEST answer from the given options for each ques

Question:

If the remainder of the division of $f(x)$ by $x + a$ is zero then

Options:

- (x+a) is a factor of f(x)
- x is a factor of f(x)
- (x-a) is a factor of f(x)
- a is factor of f(x)

Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

Question No. 25

The solution set of $z^2 + i^2 = 0$ is

- $S = \{-i\}$
- $S = \{+i\}$
- $S = \{-i, +i\}$
- $S = \{-1, +1\}$

Save & Next حفظ والتالي

Math - Quiz 1

Maths_Ser

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Determine the domain of the sum of $f(x)$ and $g(x)$.

- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$
- $x \in (-5, 2)$

Save & Next

Question No. 5

The Solution set of $\frac{1}{2}|2x+3|-1>1$ is

- $(-\infty,\frac{1}{2})\cup(\frac{7}{2},\infty)$
- $\emptyset$
- $(-\infty,\infty)$
- $(-\infty,-\frac{7}{2})\cup(\frac{1}{2},\infty)$

Save & Next

MKCL OES

Math_Quiz2_S

Question No. 4

Solve |x| - 7 = -5

- {2}
- No Solution
- {2,-2}
- {12}

Save & Next

HP Compaq LE1711

Math_Quiz2_S

MKCL OES

Question No. 11

Write an equation of the line that passes through the point (0,0) and perpendicular to the line 3x-2y=0

- 3y + 2x = 0
- 2y - 3x = 0
- 3y - 2x = 0
- 2y + 3x = 0

$$x+3<\frac{1-3x}{2}\leq x+8$$

14. **If the lines $4x + 2y = -5$ and $3x + ay = -2$ are perpendicular, what is the value of a**

(a) $a = 5$

(b) $a = 6$

(c) $a = -6$

(d) $a = -4$

Question No. 9

If $f(x)=(x-1)^2$ then $f(a^3)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^6-2a^3+1
- a^6+a+2

INSTRUCTION: تعليمات Please choose the BEST answer from the given options f

Question:

If a function f(x) has an inverse function and f(-2)=11, then

Options:

- $f^{-1}(11) = -1$
- $f^{-1}(2) = -11$
- $f^{-1}(-2) = -11$
- $f^{-1}(11) = -2$

تسليم الإجابة
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Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $[-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

MKCL OES

Question No. 1

Solve $6 \leq x - 2 < 14$

- $8 \leq x < 16$
- $6 \leq x < 16$
- $8 \leq x < 20$
- $4 \leq x < 12$

Save & Next

uestion No. 4

he solution set of the following equation: $\left|\sqrt{3}x-\sqrt{3}\right|=\sqrt{3}$ is

- $\{0,2\}$
- $\{-2,0\}$
- $\{-1+\sqrt{3},1+\sqrt{3}\}$
- $\{-1+\sqrt{3},-1-\sqrt{3}\}$

Save & Next حفظ والتالي

The solution set of the following equation: $2-|10x-\sqrt{2}|=3$ is

- $\left\{\frac{2}{5}\right\}$
- $\{\phi\}$
- $\frac{4}{5}$
- ϕ

Save & Next

Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next

Question No. 8

The domain of $f(x)=\frac{1}{\sqrt{4-x^2}}$ is

- $(-\infty,-2)\cup(-2,\infty)$
- $(-2,2)$
- $(-\infty,2)\cup(2,\infty)$
- $(-\infty,-2)\cup(2,\infty)$

Save & Next

Question No. 10

The slopes of two parallel lines are

- 0
- equal
- different
- undefined

Save & Next حفظ والتالي

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Online Evaluation System

Maths_Sem1

Question No. 20

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+4
- x^2+2x+2
- x^2+2x+5

MKCL OES
Online Evaluation System

Maths_Sem

Question No. 21

If x-4 is a factor of the polynomial f(x) then

- $f(4) = 0$
- $f(0) = 4$
- $f(-4) = 0$
- $f(0) = -4$

Question No. 23

A function $f(x)$ is one-to-one if

- $f(a) = f(b) \Rightarrow a \neq b$
- $a = b \Rightarrow f(a) \neq f(b)$
- $a \neq b \Rightarrow f(a) = f(b)$
- $a \neq b \Rightarrow f(a) \neq f(b)$

Question No. 24

Let f be the one-to-one function defined by this set of ordered pairs {(-3,2), (
Then $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

on No. 25

inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x+4}{3x-1}$, $x\neq\frac{1}{3}$.
- $f^{-1}(x)=\frac{x+4}{3x-1}$, $x\neq\frac{1}{3}$.
- $f^{-1}(x)=\frac{5x-4}{3x-1}$, $x\neq\frac{1}{3}$.
- $f^{-1}(x)=\frac{5x+4}{x-1}$, $x\neq 1$.

...dered pairs {(-3,2), (4,5),(7,4),(10,19)}.

...stion No. 24

...et f be the one-to-one function defined by this set of ordered pair
...then $f^{-1}(5) =$

- $\frac{1}{5}$
- 5
- $\frac{1}{4}$
- 4

Question No. 22

If the remainder of the division of $f(x)$ by $x+a$ is zero then

- a is a factor of the polynomial $f(x)$
- x is a factor of the polynomial $f(x)$
- $x-a$ is a factor of the polynomial $f(x)$
- $x+a$ is a factor of the polynomial $f(x)$

Question No. 16

The function $f(x) = x^2 + 6x + 8$ is equivalent to

- $f(x) = (x+3)^2 - 1$
- $f(x) = (x-3)^2 - 1$
- $f(x) = (x-3)^2 + 1$
- $f(x) = (x+3)^2 + 1$

Question No. 19

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-2) = -5$
- $f(-5) = 2$
- $f(-5) = -2$
- $f(2) = -5$

Question No. 23

The inverse of F = { (-3,3), (0,0), (4,2), (1,5) } is

- G = { (3,3), (0,0), (-4,2), (-1,5) }
- G = { (-3,-3), (0,0), (4,-2), (1,-5) }
- G = { (3,-3), (0,0), (2,4), (5,1) }
- G = { (3,3), (0,0), (2,4), (1,5) }

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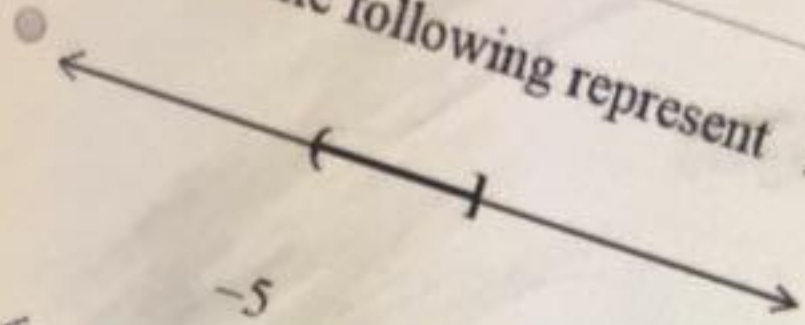
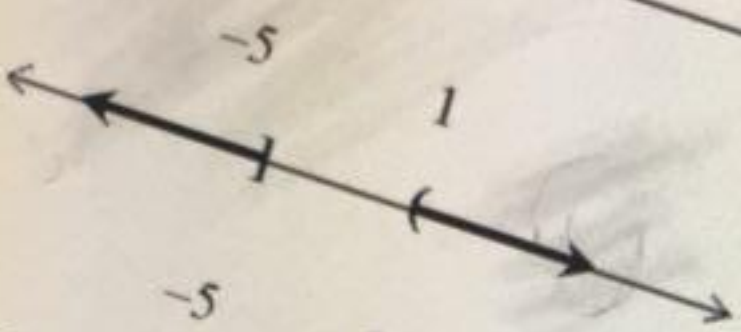
Question No. 25

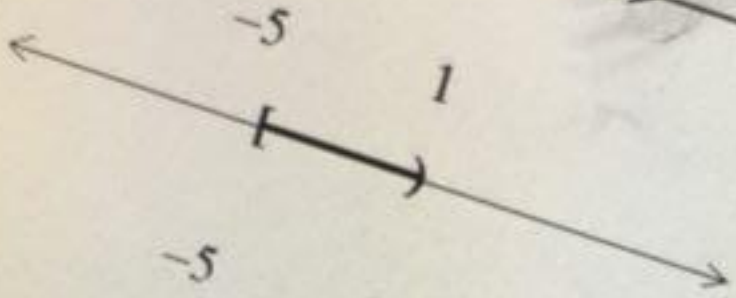
The inverse of $f(x)=\frac{1}{3x+1}, x\neq\frac{-1}{3}$, is

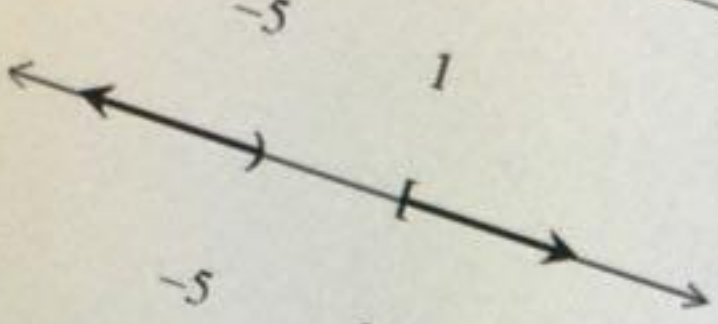
- $f^{-1}(x)=\frac{x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x-1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{3x}, x\neq 0.$

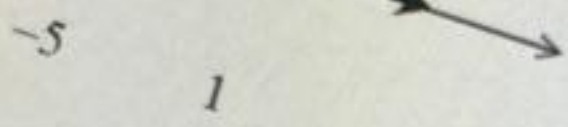
Which of the following represent $x \leq -5$ or $x > 1$











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aq LE1711

stion No. 7

The function $f(x)$ is increasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) \leq f(x_2)$,
- if $x_1 > x_2$, then $f(x_1) < f(x_2)$,
- if $x_1 < x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$,

Question No. 24

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $(-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

MKCL OES

Mat

Question No. 12

Find $(f \circ g)(x)$, where $f(x) = x^2 + x$, $g(x) = \sqrt{x-1}$.

- $2x-1$
- $x-1+\sqrt{x}$
- $x-1+\sqrt{x-1}$
- $\sqrt{x^2+x-1}$

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Question No. 25

The inverse of $f(x)=\frac{1}{3x+1}, x\neq\frac{-1}{3}$, is

- $f^{-1}(x)=\frac{-x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x-1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{x+1}{3x}, x\neq 0.$
- $f^{-1}(x)=\frac{-x+1}{x}, x\neq 0.$

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MKCL OFS

Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

Save & Next

Question No. 16

The function $f(x) = 2(x-3)^2 - 3$ can be written a

- $f(x) = 2x^2 - 12x + 15$
- $f(x) = 2x^2 - 12x + 6$
- $f(x) = 2x^2 - 12x - 21$
- $f(x) = 2x^2 - 6x + 15$

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MKCL QP5

Question No. 6

If $f(x)=x^3-1$ then $f(a-1)=$

- $(a-2)(a^2-3a+3)$
- $(a-2)(a^2-a+1)$
- $(a^3-2^3)(a^2-3a+3)$
- $(a-2)(a^3-3a+3)$

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MKCL OES

Question No. 7

If $f(x) = 3x$ then $f(x)$ is

- Constant
- Not defined
- Decreasing
- Increasing

Question No. 6

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+8a+4$
- a^4+2a^2-1
- a^2+2a-1
- $3a^2+2a-1$

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Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the quotient of $f(x)$ and $g(x)$.

- $\left(\frac{f}{g}\right)(x)=\frac{3x+5}{4x-2}$
- $\left(\frac{f}{g}\right)(x)=\frac{4x-2}{3x+5}$
- $\left(\frac{f}{g}\right)(x)=\frac{3}{4(x-2)(x+5)}$
- $\left(\frac{f}{g}\right)(x)=\frac{3x+15}{4x-8}$

Question No. 11

The slope of the vertical line that passes through the point (3,2) is

- 3
- 0
- 2
- undefined

Save & Next जतन व पुढील

Question No. 3

The solution of $4x^2 < 20 + 11x$ is .....

- $\left(-\frac{5}{4},\ 4\right)$
- $\left(-4,\ \frac{5}{4}\right)$
- $\left(-\infty, -\frac{5}{4}\right) \cup (4,\ \infty)$
- $(-\infty, -4) \cup \left(\frac{5}{4},\ \infty\right)$

Question No. 15

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its grap

- $f(x) = -x^2 - 8x - 20$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -x^2 + 4x - 4$

INSTRUCTION: Single Please choose the BEST answer from the given opti

Question:

If (x + 1) is a factor of the polynomial f(x) then

Options:

- f(-1)=0
- f(0)=-1
- f(1)=0
- f(0)=1

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The quotient of the division $\frac{x^3-1}{x-4}$ is:

Options:

- $x^2+4x+16$
- $x^2+4x+13$
- $x^2+4x+15$
- $x^2+4x+14$

Question:

The axis of the graph of $f(x) = x^2 - x + 1$ is

Options:

$y = \frac{-1}{2}$

$x = \frac{1}{2}$

$y = \frac{1}{2}$

$x = \frac{-1}{2}$

INSTRUCTION: Please choose the BEST answer from the given op

Question:

Which of the following functions is *not one to one*

Options:

- $f(x) = 8 + 16x$
- $f(x) = x$
- $f(x) = -2x + 5$
- $f(x) = \sqrt{81 - x^2}$

Question No. 7

If $f(x) = -\sqrt{2x}$ then $f(x)$ is

- decreasing
- increasing
- constant
- not defined

Question No. 13

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Determine the domain of the sum of $f(x)$ and $g(x)$.

- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$
- $x \in (-5, 2)$

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Question No. 25

The inverse of $f(x)=\frac{x+4}{3x-5}$, $x\neq\frac{5}{3}$, is

- $f^{-1}(x)=\frac{5x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{x+4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{5x-4}{3x-1}, x\neq\frac{1}{3}.$
- $f^{-1}(x)=\frac{5x+4}{x-1}, x\neq 1.$

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Question No. 3

The solution of $\frac{3x+4}{2x-1} \leq 0$ is .....

- $(-\infty, -\frac{4}{3}] \cup (\frac{1}{2}, \infty)$
- $[-\frac{4}{3}, \frac{1}{2})$
- $(-\frac{4}{3}, \frac{1}{2})$
- $(-\infty, -\frac{4}{3}) \cup (\frac{1}{2}, \infty)$

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The Solution set of $|2x| - 18 > -12$ is

- $(-\infty, \infty)$
- $\emptyset$
- (-3,3)
- $(-\infty, -3) \cup (3, \infty)$

Question No. 8

The range of the relation $y \leq x - 1$ is

- $[0, \infty)$
- $(4, \infty)$
- $(-\infty, \infty)$
- $[-4, \infty)$

Question No. 8

The range of the relation $y \leq x - 1$ is

- $[0, \infty)$
- $(4, \infty)$
- $(-\infty, \infty)$
- $[-4, \infty)$

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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Question No. 12

Find $f(x)-g(x)$, if $f(x)=\frac{8x-5}{4}$, $g(x)=\frac{1}{x}$.

- $\frac{8x^2-5x+4}{4x}$
- $\frac{8x-5}{4-x}$
- $\frac{8x^2-5x-1}{4x}$
- $\frac{8x^2-5x-4}{4x}$

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on No. 10

he equation of the given line is

- y= -2x + 3
- y = 2x - 3
- y = -2x - 1
- y = 2x + 1

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

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Question No. 9

Give the x-intercept of the line $3y - 2x + 6 = 0$

- -2
- -3
- 2
- 3

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Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4,5)$
- $(-5,4)$
- $(-\infty,-5)\ \mathrm{U}\ (4,\infty)$
- $(-\infty,-4)\ \mathrm{U}\ (5,\infty)$

Save & Next حفظ والتالى

stion No. 2

Determine the solution set of the following inequality

$$-4 - x < -x$$

- $S = (4, \infty)$
- $S = (-\infty, -4)$
- $S = \phi$
- $S = (-\infty, \infty)$

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Maths_Sem1_Quiz-2_2016-17

Question No. 2

Determine the solution set of the following inequality

$$4 \leq -4 + 2x < 10$$

- S=[4,7)
- S=[4,7]
- S=(4,7)
- S=(4,7]

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Question No. 11

Which of the following is a vertical line:

- $x = -2$
- $5y - \frac{1}{2}x + 1 = 0$
- $y = \frac{1}{2}$
- $3y - x = 0$

Question No. 25

The inverse of $f(x) = 3x + 2$ is

- $f^{-1}(x) = \frac{1}{3}(x + 2)$
- $f^{-1}(x) = -\frac{1}{3}(x + 2)$
- $f^{-1}(x) = -\frac{1}{3}(x - 2)$
- $f^{-1}(x) = \frac{1}{3}(x - 2)$

Save & Next

Question No. 2

Solve $-3(x+4)+2x<6$

- $(18,\infty]$
- $(-\infty,-18]$
- $(-\infty,-18)$
- $(-18,\infty)$

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Maths_Sem1_Quiz-2_2016-17

Question No. 3

Determine the solution set of the following inequality

$$3 + x < \frac{1 - 3x}{2} \leq x + 8$$

- (-3,-1]
- [-3,-1)
- [-1,3)
- (-1,3]

Save & Next

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stion No. 14

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Determine the domain of the quotient of $f(x)$ and $g(x)$.

- $x \in (-\infty, 2) \cup (2, \infty)$
- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (-5, \infty)$

No. 10

The slopes of two parallel lines are

- different
- equal
- 0
- undefined

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Question No. 16

The axis of the graph of $f(x) = x^2 - x + 1$ is

- $y = \frac{-1}{2}$
- $x = \frac{-1}{2}$
- $y = \frac{1}{2}$
- $x = \frac{1}{2}$

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Question No. 23

The domain of the inverse of F = {(-5,2), (1,0), (4,12), (-1,3)} is

- D = {-5, 1, 4, -1}
- D = {3, 0, 4, 12}
- D = {5, 3, 1, 0}
- D = {2, 0, 12, 3}

Save & Next

Question No. 15

What is the equivalent equation of $x^2 - 6x + 2 = 0$ by completing the square?

- $(x-6)^2 + 2 = 0$
- $(x-3)^2 - 11 = 0$
- $(x-3)^2 - 7 = 0$
- $(x+3)^2 - 11 = 0$

Save & Next

Question No. 20

If 'a' is a real number then the remainder of the divisi
$(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 5
- a + 2
- a + 4
- a + 3

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Question No. 4

The solution set of the following equation: $|16-5x|-2=3$ is

- $\left\{\frac{4}{5}, \frac{8}{5}\right\}$
- ϕ
- $\{4,7\}$
- $\left\{\frac{11}{5}, \frac{21}{5}\right\}$

Question No. 20

The quotient of the division $\frac{x^3-5}{x-3}$ is:

- x^2+3x+8
- x^2+3x+9
- x^2+3x+7
- x^2+3x+6

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Question No. 7

If $f(x)=(x-1)^2$ then $f(a^3)=$

- a^6+a+2
- a^6-2a^3+1
- a^2+2a-1
- $3a^2+2a-1$

Question No. 9

Give the y-intercept of the line -5x+y = - 3

- 3
- -5
- 5
- -3

Question No. 8

The domain of $f(x) = \sqrt[3]{2x+1}$ is

- $(-\infty, \infty)$
- $(-0.5, \infty)$
- $(-\infty, -3) \cup (-3, 1)$
- $[-0.5, \infty)$

Question No. 6

The domain of $f(x)=x^2-2x+1$ is

- $(-\infty,8)$
- $(-\infty,\infty)$
- $(0,\infty)$
- $(-4,2)$

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Question No. 10

Give the y-intercept of the line $3y - x = 0$

- -3
- 1
- 0
- 3

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OES

Question No. 17

The graph of $f(x) = x^2 - 6x + 9$ has

- No x-intercept
- Two x-intercepts
- Nine x-intercepts
- One x-intercept

Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

(a) $3a^2+2a-1$

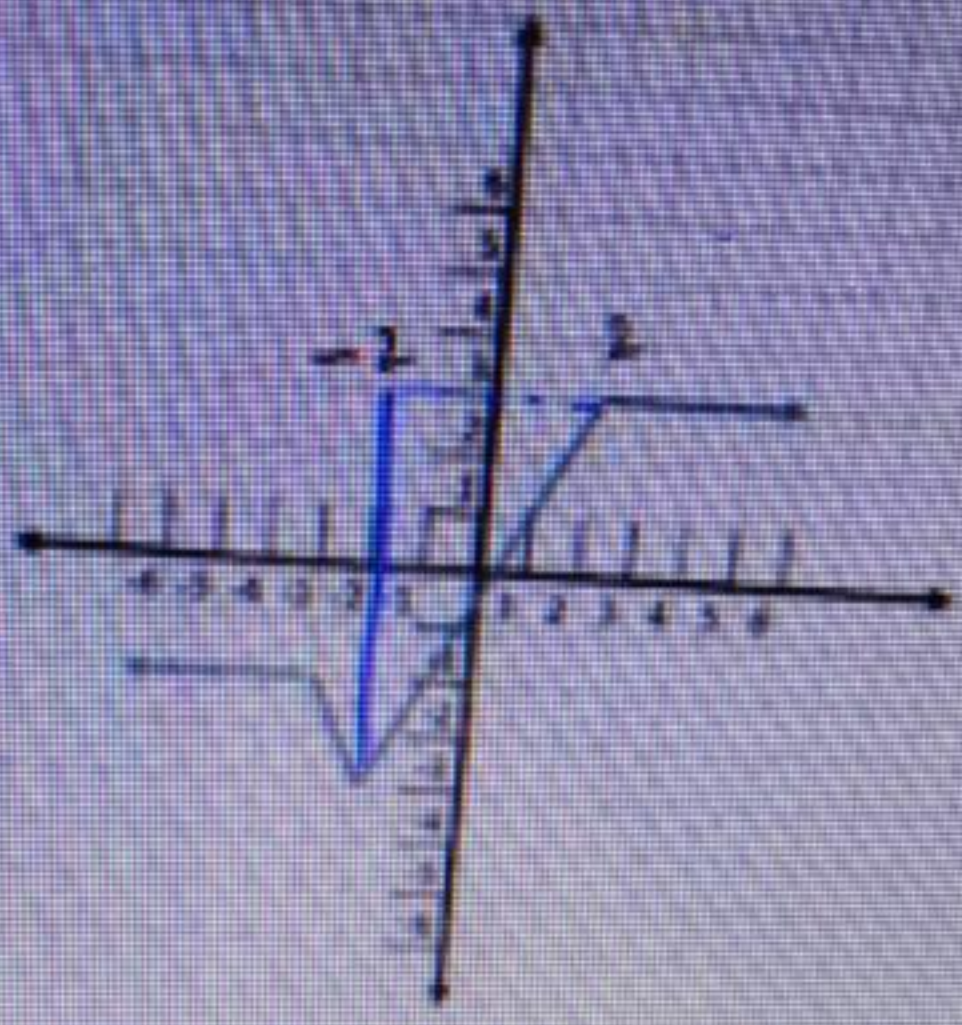
(b) a^2+2a-1

(c) a^4+2a^2-1

(d) $3a^2+8a+4$

Question No. 10

Identify the intervals where this function is increasing.



a. $(-2, \infty)$

b. $(-3, \infty)$

c. $(-3, -2)$

d. $(-2, 2)$

Question No. 16

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x) = -\frac{1}{x-7}$
- $(f-g)(x) = \frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+23}{(x-2)(x+5)}$

Find $(f-g)(x)$

$= f(x) - g(x)$

$= \frac{3}{x-2} - \frac{4}{x+5}$

$= \frac{(x+5)3}{x-2} - \frac{4(x-2)}{x+5}$

$= \frac{3x+15-4x+8}{(x-2)(x+5)}$

$= \frac{-x+23}{(x-2)(x+5)}$

Question No. 27

The inverse of $f(x) = (5x-1)^3$ is

- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}+1)$
- $f^{-1}(x) = 5(\sqrt[3]{2x}-1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{2x}+1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}-1)$

$y = (5x-1)^3$

$x = (5y-1)^3$

$\sqrt[3]{x} = 5y-1$

$5y = \sqrt[3]{x}+1$

$y = \frac{\sqrt[3]{x}+1}{5}$

$f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}+1)$

Question No. 7

The Solution set of $-2|x-7| \leq -28$ is

- $(-\infty, -7] \cup [21, \infty)$
- $\emptyset$
- $-7 \leq x \leq 21$
- $(-\infty, \infty)$

$-2|x-7| \leq -28$

$|x-7| \leq 14$

either $x-7 \geq 14$ or $x-7 \leq -14$

$x \geq 21$ $\quad$ $x \leq -7$

$[21, \infty)$ $\quad$ $= (-\infty, -7]$

$\therefore (-\infty, -7] \cup [21, \infty)$

MARCEL OES

Question No. 3

If a>b and c is a real number, then

assume $a=4$, $b=3$ $c=1$

- $b-c<a-c$ ⇒ $3-1<4-1$??
- $b-c>a-c$ $2<3$ ✓✓
- $b-c\geq a-c$
- $b-c\leq a-c$

Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $[-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

domain of $f^{-1}(x)$ = range of $f(x)$

Range $f(\infty) = R$

So :. Domain $f^{-1}(x) = R$

MACLOES

Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+8a+1$

$f(a+1) = 3(a+1)^2 + 2(a+1) - 1$

$= 3(a^2+2a+1) + 2a + 2 - 1$

$= 6a^2 + 6a + 3 + 2a + 1$

$= 6x^2 + 8a + 4$

Question No. 18

The remainder of the division $(x^5 + 2x^2 - x + 1) \div (x - 1)$ is

- 4
- 3
- 5
- 2

Question No. 6

If $f(x) = \dfrac{1}{x^2 - 2x + 1}$ then $f(-1) =$

- 0
- 4
- $\frac{1}{2}$
- $\frac{1}{4}$

Save & Next जतन व पुढील

Question No. 19

The degree of the quotient of the division $(x^8 - 4x^3 + x + 9) \div (x - 3)$ equal

- 6
- 8
- 9
- 7

Question No. 7

The function $f(x)$ is increasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) < f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 > x_2$, then $f(x_1) \leq f(x_2)$.

Maths_Se

Question No. 2

Determine the solution set of the following inequality

$$-4x + 20 < 0$$

- $S = (-\infty, -5)$
- $S = (5, \infty)$
- $S = (-\infty, 5)$
- $S = (-5, \infty)$

Question No. 18

The quotient of the division $(x^3 + 3x^2 - x + 1) \div (x + 2)$ is

- $x^2 - x - 3$
- $x^2 - x + 3$
- $x^2 + x - 3$
- $x^2 + x + 3$

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Question No. 8

The range of $f(x) = \sqrt{x^2 + 1}$ is

- $[-1, \infty)$
- $(0, \infty)$
- $[0, \infty)$
- $[1, \infty)$

Question No. 19

If $f(x)$ is a polynomial such that $f(1) = 6$ then the remainder of the division $f(x) \div (x - 1)$ equals:

- 6
- 1
- -1
- -6

Save & Next حفظ والتالي

Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Determine the domain of the product of $f(x)$ and $g(x)$.

- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-5, 2)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$

Question No. 11

Write an equation of the line that passes through the point $(0,0)$ and has slope $-\frac{1}{2}$

- $x+\frac{1}{2}y=0$
- $x-\frac{1}{2}y=0$
- $x-2y=0$
- $x+2y=0$

Save & Next

Maths_Sem1_Quiz-2_2016-17

Question No. 12

Find $\frac{f(x)}{g(x)}$ and its domain , where $f(x) = 3x - 6$, $g(x) = x - 2$

- 3, all real numbers except $x = 2$
- 3, all real numbers
- -3, all real numbers except $x = 3$
- 1, all real numbers

Save & Next

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Question No. 11

The slope of a linear function is 3 and its y-intercepts is -2.
Which graph represents this function?

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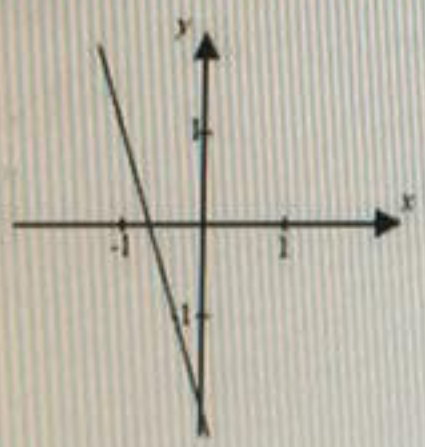

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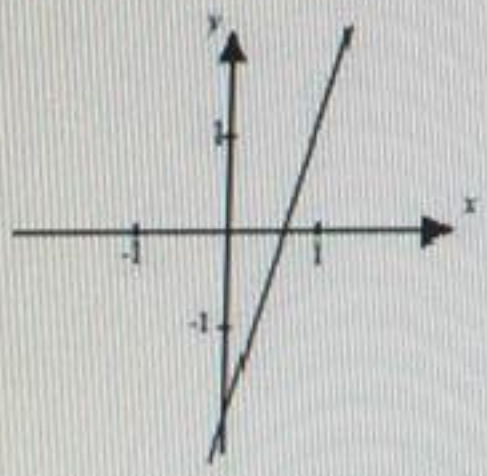

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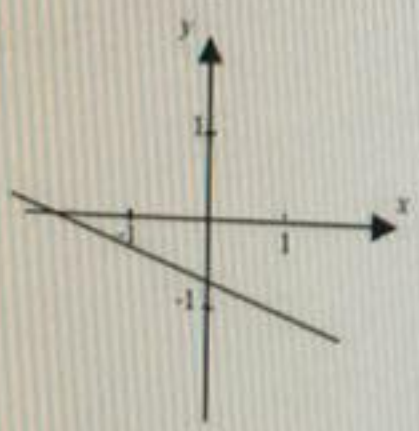

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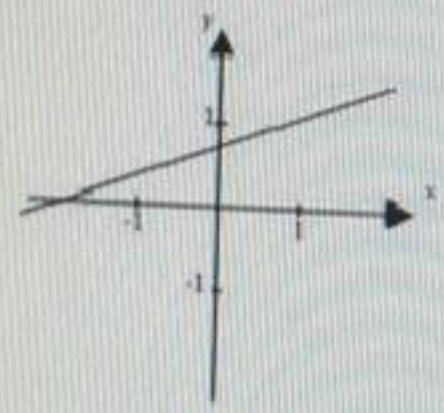

- II
- I
- III
- IV

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Question No. 24

Which of the following functions is not one-to-one

- $f(x) = x^3$
- $f(x) = -x$
- $f(x) = \sqrt{x}$
- $f(x) = -x^2$

Save & Next जतन व पुढे

Question No. 2

Determine the solution set of the following inequality

$$4 \leq -4 + 2x < 10$$

- s=[4,7)
- s=(4,7)
- s=(4,7]
- s=[4,7]

Save & Next محفظ والتالي

Question No. 24

Let $f(x)$ be a one-to-one function, then $g(x)$ is the inverse function of $f(x)$ if

- $(fog)(x) = x$ only
- $(fog)(x) \neq x$ and $(gof)(x) \neq x$
- $(fog)(x) \neq x$ only
- $(fog)(x) = x$ and $(gof)(x) = x$

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Question No. 25

The inverse of $f(x)=\dfrac{1}{3x+1}$, $x\neq\dfrac{-1}{3}$, is

- $f^{-1}(x)=\dfrac{x+1}{3x}$, $x\neq 0$.
- $f^{-1}(x)=\dfrac{-x+1}{x}$, $x\neq 0$.
- $f^{-1}(x)=\dfrac{-x+1}{3x}$, $x\neq 0$.
- $f^{-1}(x)=\dfrac{-x-1}{3x}$, $x\neq 0$.

Question No. 8

The range of $f(x) = \sqrt{x^2 + 1}$ is

- $[-1, \infty)$
- $(0, \infty)$
- $[0, \infty)$
- $[1, \infty)$

Save & Next

Question No. 25

The inverse of $f(x)=\frac{\sqrt[3]{x}-5}{2}$ is

- $f^{-1}(x)=(2x+5)$
- $f^{-1}(x)=\frac{1}{3}(2x+5)$
- $f^{-1}(x)=3(2x+5)$
- $f^{-1}(x)=(2x+5)^3$

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Question No. 22

Given that $f(x) = 6x^3 + x^2 + 5x - 12$, then one of the following is a factor of $f(x)$

- x + 1
- x + 2
- x - 1
- x - 2

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Question No: 9

Find the slope of the line through the points (-4,8),(2,-3)

- $\frac{11}{6}$
- $\frac{6}{11}$
- $-\frac{6}{11}$
- $-\frac{11}{6}$

Save & Next حفظ والتالي

Question No. 4

The Solution set of $\frac{1}{9}|x-7|=7$ is

- {56,70}
- {70,-56}
- {70,-70}
- {56,-56}

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Question No. 22

If the remainder of the division of $f(x)$ by $x + a$ is zero then

- a is a factor of the polynomial $f(x)$
- $x - a$ is a factor of the polynomial $f(x)$
- x is a factor of the polynomial $f(x)$
- $x + a$ is a factor of the polynomial $f(x)$

Save & Next

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Question No. 1

If a>b and c is a real number, then

- $b-c \leq a-c$
- $b-c > a-c$
- $b-c \geq a-c$
- $b-c < a-c$

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Question No. 3

Determine the solution set of the following inequality

$$(x-5)^2 \geq 4$$

- $(-\infty, 3) \cup (7, \infty)$
- $(-\infty, 3] \cup [7, \infty)$
- $[3, 7]$
- $(3, 7)$

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Question No. 4

The solution set of the following equation: $|7x-8|+12=10$ is

- $\{2,4\}$
- $\{6,12\}$
- $\{3,12\}$
- ϕ

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Question No. 5

The solution set of $7 - 3|x + 7| \leq -2$ is

- $(-\infty, -2] \cup [-12, \infty)$
- $(-\infty, -4] \cup [-10, \infty)$
- $(-\infty, -2] \cup [2, \infty)$
- $(-\infty, -4] \cup [2, \infty)$

Question No. 6

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+8a+4$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+2a-1$

Save & Next حفظ والتالي

Question No. 10

The line through the point (-1,-3) with slope equal to zero is

- x = -3
- y = -3
- x = -1
- y = -1

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Question No. 12

Find $\frac{f(x)}{g(x)}$ and its domain , where $f(x) = 3x - 6$, $g(x) = x - 2$

- 3; all real numbers except x = 2
- 3; all real numbers
- 1; all real numbers
- -3; all real numbers except x = 3

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Question No. 6

If $f(x)=\dfrac{1}{x^2+x+1}$ then $f(-1)=$

- 0
- 1
- -1
- 5

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Question No. 3

Determine the solution set of the following inequality

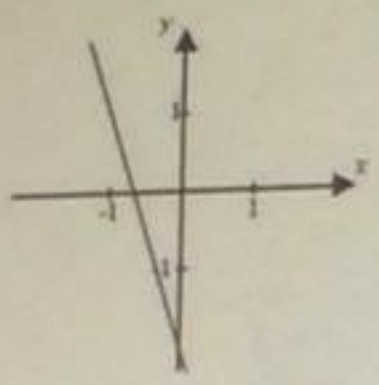
$$3 + x < \frac{1 - 3x}{2} \leq x + 8$$

- (-1,3]
- (-3,-1]
- [-3,-1)
- [-1,3)

Question No. 11

The slope of a linear function is 3 and its y-intercepts is -2.
Which graph represents this function?

I



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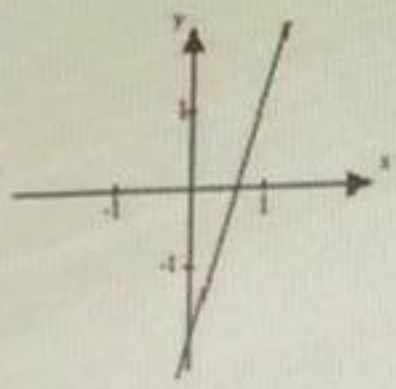

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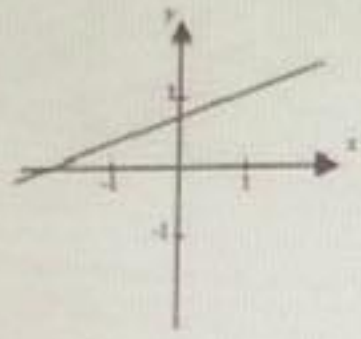

- II
- IV
- III
- I

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Question No. 13

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Determine the domain of the product of $f(x)$ and $g(x)$.

- $x \in (-\infty, -5) \cup (-5, 2) \cup (2, \infty)$
- $x \in (-\infty, \infty)$
- $x \in (-\infty, -5) \cup (2, \infty)$
- $x \in (-5, 2)$

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Question No. 14

If $f(x)=\sqrt{x+2}$ and $g(x)=3x-5$. Find $h(x)=(g\circ f)(x)$

- $h(x)=3\sqrt{x-1}$
- $h(x)=3\sqrt{x+2}-5$
- $h(x)=\sqrt{3x-3}$
- $h(x)=3\sqrt{x}+3$

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Question No. 15

Find the domain and the range of the function $f(x) = (x+8)^2 - 7$

- Domain:$(-\infty,\infty)$;range:$(-8,\infty)$
- Domain:$(-7,\infty)$;range:$(-\infty,\infty)$
- Domain:$(-8,\infty)$;range:$(-\infty,\infty)$
- Domain:$(-\infty,\infty)$;range:$[-7,\infty)$

Save & Next حفظ والتالي

Question No. 3

Determine the solution set of the following inequality

$$(x-1)^2 \leq 4$$

- [-3,1)
- (-3,-1]
- (-1,3)
- [-1,3]

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Question No. 15

Which of these quadratic functions has the narrowest graph?

- $y = -3x^2$
- $y = \frac{1}{3}x^2$
- $y = -4x^2$
- $y = \frac{1}{7}x^2$

Question No. 11

Write the equation of the line passes through (–5,6), and prependicular to the line x = -2

- x = -5
- -5x + 6y = -2
- y = 6
- 5x + 6y = 2

Question No. 15

Identify the vertex and the y-intercept of the graph of the function $y = 3(x+2)^2 - 5$

- vertex:(2,5); y-intercept: 12
- vertex: (2,-5); y-intercept: 7
- vertex:(-2,5); y-intercept: -1
- vertex:(-2,-5); y-intercept: 7

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Question No. 5

The Solution set of $-|4x+2| \geq 6$ is

- $(-\infty, +\infty)$
- $(-2, 1)$
- $\emptyset$
- $(-\infty, -2] \cup [1, \infty)$

Question No. 15

Identify the vertex and the y-intercept of the graph of the function $y = 3(x + 2)^2 - 5$

- vertex:(-2,5); y-intercept: -1
- vertex:(2,5); y-intercept: 12
- vertex:(-2,-5); y-intercept: 7
- vertex: (2,-5); y-intercept: 7

Save & Next

Question No. 8

The range of $f(x) = -x^2$ is

- $[-1, \infty)$
- $(-\infty, -1]$
- $(0, \infty)$
- $(-\infty, 0]$

Save & Next

Question No. 14

If $f(x) = \sqrt{x+2}$ and $g(x) = 3x - 5$. Find $h(x) = (g \circ f)(x)$

- $h(x) = 3\sqrt{x-1}$
- $h(x) = 3\sqrt{x+2} - 5$
- $h(x) = 3\sqrt{x} + 3$
- $h(x) = \sqrt{3x-3}$

Save & Next

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Question No. 3

Determine the solution set of the following inequality

$$(x-5)^2 \geq 4$$

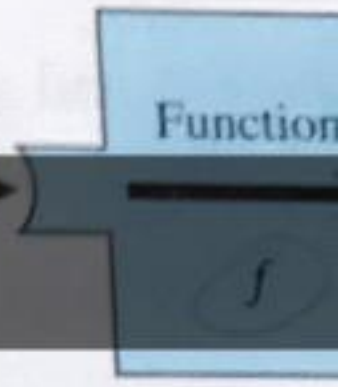
- $(-\infty, 3) \cup (7, \infty)$
- $[3, 7]$
- $(3, 7)$
- $(-\infty, 3] \cup [7, \infty)$

to the graph of the function at a given point.

To illustrate, it is shown in calculus that the derivative of $f(x) = x^2 + 3$ is given by the function $f'(x) = 2x$. Now, $f'(0) = 2(0) = 0$, meaning that the slope of the tangent line to $f(x) = x^2 + 3$ at $x = 0$ is 0, which implies that the tangent line is horizontal. If you draw this tangent line, you will see that it is the line $y = 3$, which is indeed a horizontal line.

Composition of Functions a

function f that assigns to ea
tion g assigns to each $f(x)$ i
takes an element x and prod



H.W 2 (P.108)

$2x^2 - 3x$

$$\rightarrow \frac{f(x+h) - f(x)}{h} \leftarrow$$

① $f(x+h) \rightarrow 2(x+h)^2 - 3(x+h)$

② $x^2 + 2xh + h^2 - 3x - 3h$

$2x^2 + 4xh + 2h^2 - 3x - 3h$

$2x^2 + 4xh + 2h^2 - 3x - 3h - 2x^2 + 3x$

h

$\frac{4xh + 2h^2 - 3h}{h}$ → نوزع البواقي الثلاثة

$= 4x + 2h - 3$

A $40 pair of blue je
noon, the retailer off
blue jeans?

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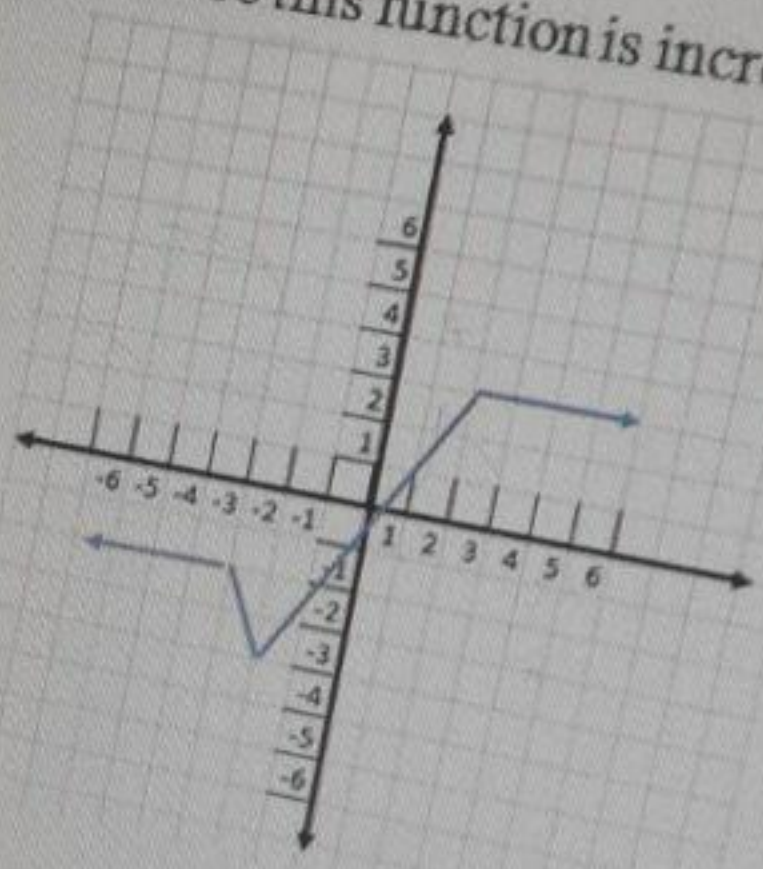
Question No. 8

Identify the intervals where this function is increasing.



- $(-3,-2)$
- $(-2,\infty)$
- $(-2,2)$
- $(-3,\infty)$

Save & Next

MKCL OES

Question No. 2

Determine the solution set of the following inequality

$$-2x - 10 < 0$$

- $S = (-\infty, -5)$
- $S = (5, \infty)$
- $S = (-5, \infty)$
- $S = (-\infty, 5)$

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Question No. 9

The slope of the line through the points $(x_1, y_1), (x_2, y_2)$

- $\frac{y_2 - y_1}{x_2 + x_1}$
- $\frac{y_2 + y_1}{x_2 + x_1}$
- $\frac{y_2 - y_1}{x_2 - x_1}$
- $\frac{y_2 + y_1}{x_2 - x_1}$

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Question No. 7

If $f(x)=x^3+2x^2-1$ then $f(a^4)=$

- a^7+2a^6-1
- $a+2a^{-1}-1$
- a^9-1
- $a^{12}+2a^8-1$

Question No. 4

The solution set of the following equation: $|x+1|=-0.5$ is

- $\{0.5\}$
- $\{-2\}$
- ϕ
- $\{19\}$

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Question No. 11

Find the slope of the line $3x - \sqrt{3}y = \sqrt{2}$

- $\sqrt{3}$
- $\sqrt{2}$
- 3
- Undefined.

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Question No. 5

The Solution set of $2-|1+\frac{x}{2}| \geq 5$ is

- $[-4,8]$
- $\emptyset$
- $(-\infty,\infty)$
- $(-\infty,-8] \cup [4,\infty)$

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Online Evaluation System

Question No. 12

If $f(x) = \frac{1}{x}$ and $g(x) = x + 2$, what is $g(f(4))$?

- $\frac{3}{2}$
- $\frac{9}{4}$
- $\frac{25}{4}$
- $\frac{1}{6}$

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Question No. 1

Solve this quadratic inequality $x^2 - x - 20 > 0$

- $(-4,5)$
- $(-\infty,-5)\ U\ (4,\infty)$
- $(-5,4)$
- $(-\infty,-4)\ U\ (5,\infty)$

Question No. 15

Which of these quadratic functions has the narrowest graph?

- $y = \frac{1}{7}x^2$
- $y = \frac{1}{3}x^2$
- $y = -4x^2$
- $y = -3x^2$

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Online Evaluation System

Question No. 13

If $f(x) = 5x^2 + 5x + 3$ and $g(x) = 3x^2 + 10x + 6$. Find $h(x) = f(x) - g(x)$.

- $h(x) = 2x^2 - 5x + 1$
- $h(x) = -2x^2 + 5x + 3$
- $h(x) = 2x^2 - 5x - 3$
- $h(x) = -2x^2 + 5x + 1$

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Question No. 10

The slope of the line $x = -3$ is

- 1
- -1
- 0
- Undefined

Question No. 2

Write $x < -4$ or $x \geq 4$ in interval notation

- $(-\infty, -4] \cup (4, \infty)$
- $(-\infty, -4) \cup [4, \infty)$
- $(-4, 4]$
- $[-4, 4)$

Save & Next جतन र पुढील

Question No. 11

Find the equation of the line parallel to $y = 3x - 1$ that passes through the point $(0, 5)$

- $y = 3x - 5$
- $y = 3x + 5$
- $y = -3x - 5$
- $y = -3x + 5$

Save & Next حفظ والتالي

Question No. 19

If $f(x)$ is a polynomial such that $f(2) = 3$ then the remainder of the division $f(x) \div (x-2)$ equals:

- -2
- 3
- -3
- 2

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Question No. 20

If 'a' is a real number then the remainder of the division $(x^3 + ax^2 + x + 2) \div (x - 1)$ is:

- a + 5
- a + 2
- a + 4
- a + 3

Save & Next

MKCL QES

Question No. 16

The axis of the graph of $f(x) = x^2 - x + 1$ is

- $y = \frac{-1}{2}$
- $x = \frac{-1}{2}$
- $y = \frac{1}{2}$
- $x = \frac{1}{2}$

Save & Next جمع و التالی

Question No. 4

Determine the solution set of the following inequality

$$3 + x < \frac{1 - 3x}{2} \leq x + 6$$

- (-1,3]
- [-1,3)
- (-3,1]
- [-3,1)

Question No. 15

What is the equivalent equation of $x^2 - 6x + 2 = 0$ by completing the square?

- $(x-3)^2 - 7 = 0$
- $(x-6)^2 + 2 = 0$
- $(x-3)^2 - 11 = 0$
- $(x+3)^2 - 11 = 0$

Question No. 8

Let $A = \{-6, -12, -5, -\sqrt{3}, 0, 2\pi, 3, \sqrt{12}\}$. The subset of all rational numbers of A is

- $\{-6, -12, -5, 0, 3\}$
- $\{-\sqrt{3}, 2\pi, \sqrt{12}\}$
- $\{-6, -12, -5, -\sqrt{3}, 0, 3\}$
- $\{-6, 0, 3\}$

Question No. 4

Select the correct property that describes the given equation.
$x + (y + 3) = x + (3 + y)$

- Inverse property of addition
- Identity property of addition
- Commutative property of addition
- Associative property of multiplication

Simplify $\frac{x^{-1}+y^{-1}}{1-x^{-1}}$

- $\frac{x+1}{x-1}$
- $\frac{x+y}{y(x-1)}$
- $\frac{x+y}{x-1}$
- $\frac{x+y}{xy-1}$

Save & Next

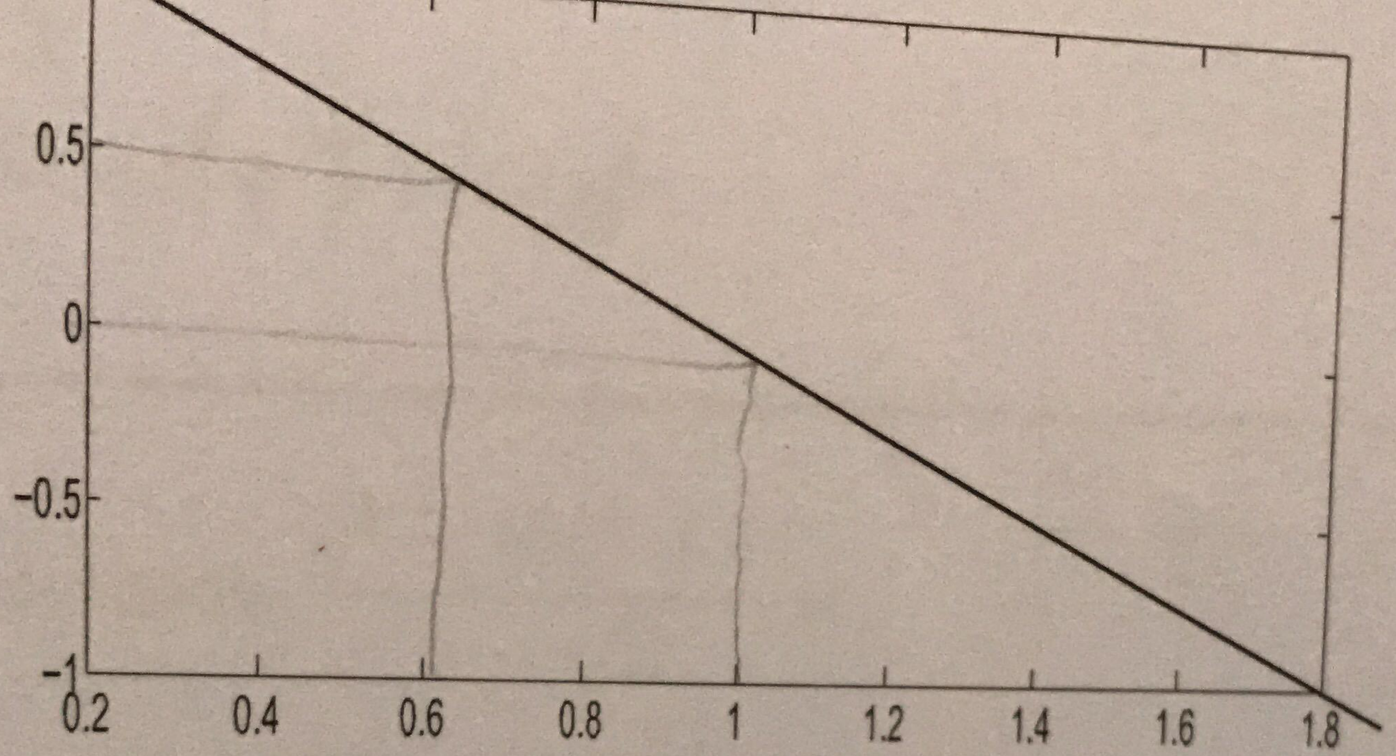
1 - $f(x) = x^3 - 1$, $f(a-1)$

$f(x) = (x-1)(x^2+x+1)$

$f(a-1) = (a-1-1)\left[(a-1)^2+(a-1)+1\right]$

$= (a-2)\left[a^2-2a+1+a-1+1\right]$

$= (a-2)\left[a^2-a+1\right]$



- 5)

+ 5)

- 5)

- 5)

x_1, y_1

$(1, 0)$

x_2 y_2

$(0.6, 0.5)$

$m = \frac{-5}{4}$

$y = \frac{-5}{4}(x-1)$

$y = \frac{1}{4}(-5x+5)$

and $g(x) = \dfrac{x}{x-1}$, then domain of $f \circ g$ is

$\frac{1}{2}, 1) \cup (1, \infty)$

$) \cup (2, \infty)$

$\frac{1}{2}, 2) \cup (2, \infty)$

$) \cup (1, \infty)$

$R - \{1\}$

$x \neq 1$

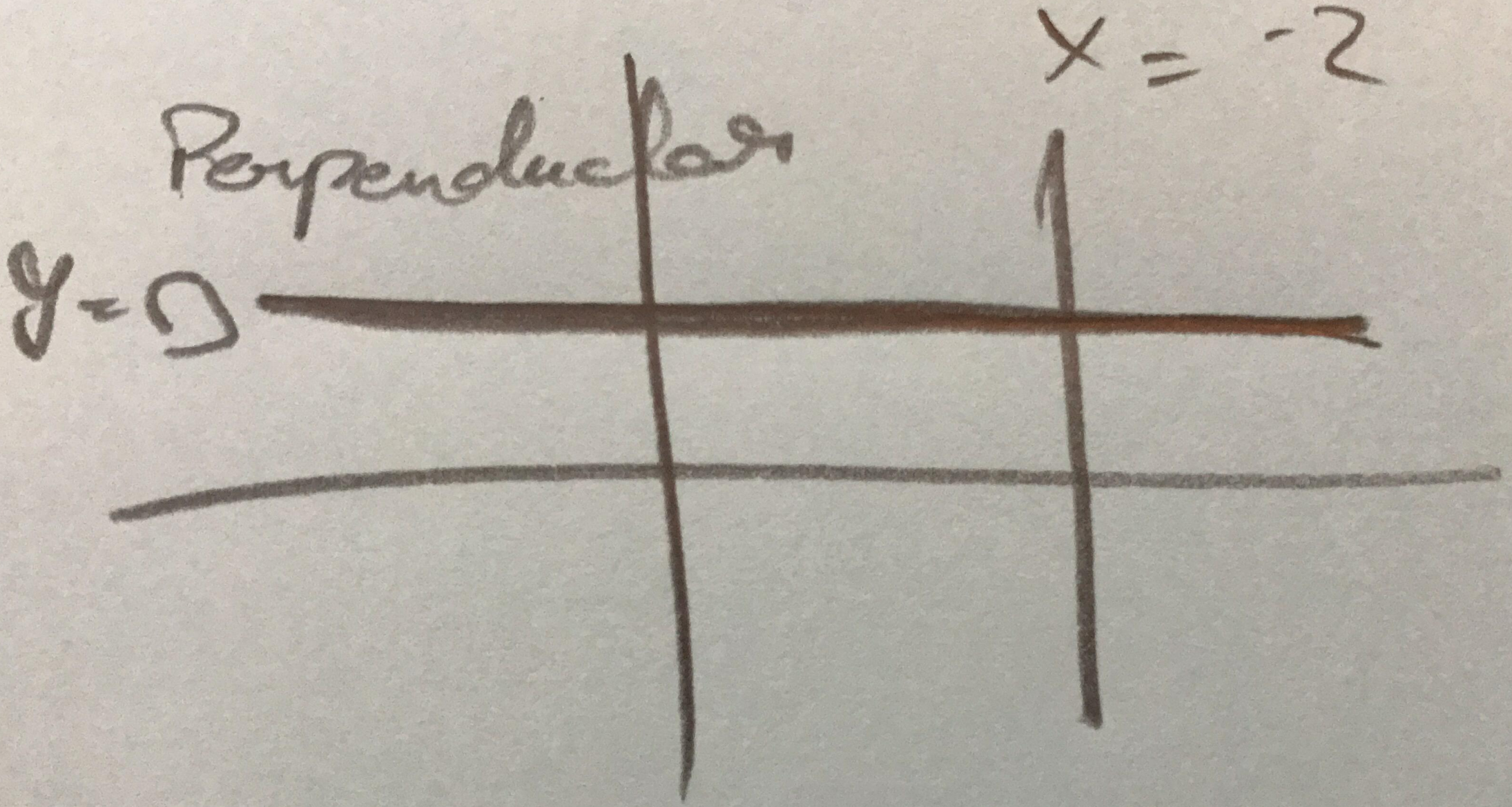
$\dfrac{1}{\frac{x}{x-1} + 1}$

$\dfrac{1}{\frac{x + x - 1}{x-1}}$

$\dfrac{x-1}{2x-1}$

$R - \{1, \frac{1}{2}\}$

$x \neq$


x = -2
Perpendicular
y = 0

$3x - 2y = 0$ ← $m = \frac{3}{2}$

Perpendicular

m_2 $\frac{-2}{3}$

$m_2 \cdot m_1 = -1$

$\frac{-2}{3} \cdot \frac{3}{2} = -1$

$y = \frac{-2}{3}(x)$

$3y + 2x = 0$

$$9\frac{1}{2} \div 3 = 4$$

$$0.2 \times 30 = 6$$

$$1 \times 6 \times 1$$

Question No. 15

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the quotient of $f(x)$ and $g(x)$.

- $\left(\frac{f}{g}\right)(x)=\frac{3x+15}{4x-8}$
- $\left(\frac{f}{g}\right)(x)=\frac{4x-2}{3x+5}$
- $\left(\frac{f}{g}\right)(x)=\frac{3}{4(x-2)(x+5)}$
- $\left(\frac{f}{g}\right)(x)=\frac{3x+5}{4x-2}$

Save & Next

$$\frac{-5}{-3x-2} > 0$$ ايشا فكرة الحل؟

Math_Qz3_Sec5.4_2014-15

Q01 Q02

INSTRUCTION: تعليمات Please choose the BEST answer from the given options for each question.

Question:

If (x+1) is a factor of the polynomial f(x) then

Options:

- f(-1)=0
- f(0)=-1
- f(1)=0
- f(0)=1

تسليم الإجابة
Submit Answer

Question No. 22

The quotient of the division $\frac{x^3-7}{x-2}$ is:

- x^2+2x+3
- x^2+2x+2
- x^2+2x+4
- x^2+2x+5

Question No. 17

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its graph.

- $f(x) = -x^2 - 8x - 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = -x^2 + 4x - 4$

Question No. 17

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its graph.

- $f(x) = -x^2 - 8x - 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = -x^2 + 4x - 4$

Save & Next जतन करा पुढील

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Question No. 21

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-5) = 2$
- $f(-2) = -5$
- $f(-5) = -2$
- $f(2) = -5$

Save & Next

Question No. 6

The solution set of the following equation $2\left|10x-\sqrt{2}\right|=3$ is

$\left\{\frac{1}{2}\right\}$

$\left\{\frac{3}{2}\right\}$

$\left\{\frac{1}{5}\right\}$

$\left\{\frac{2}{5}\right\}$

Mark for Review

Question No. 10

The domain of $f(x)=\frac{1}{\sqrt{4-x^2}}$ is

- $(-2,2)$
- $(-\infty,-2)\cup(-2,\infty)$
- $(-\infty,2)\cup(2,\infty)$
- $(-\infty,-2)\cup(2,\infty)$

Save & Next حفظ و التالي

INSTRUCTION: → Please choose the BEST answer from the given opti

Question:

Solve $\frac{1}{2}|2x+3|-1>1$

Options:

- $(-\infty,\infty)$
- $\emptyset$
- $(-\infty,-\frac{7}{2})\cup(\frac{3}{2},\infty)$
- $(-\infty,\frac{3}{2})\cup(\frac{7}{2},\infty)$

MKCL OES
Online Evaluation System

Question No. 12

Give the slope of the line $4y - 8x + 28 = 0$

- -7
- -2
- 7
- 2

Question No. 3

If a>b and c is a real number, then

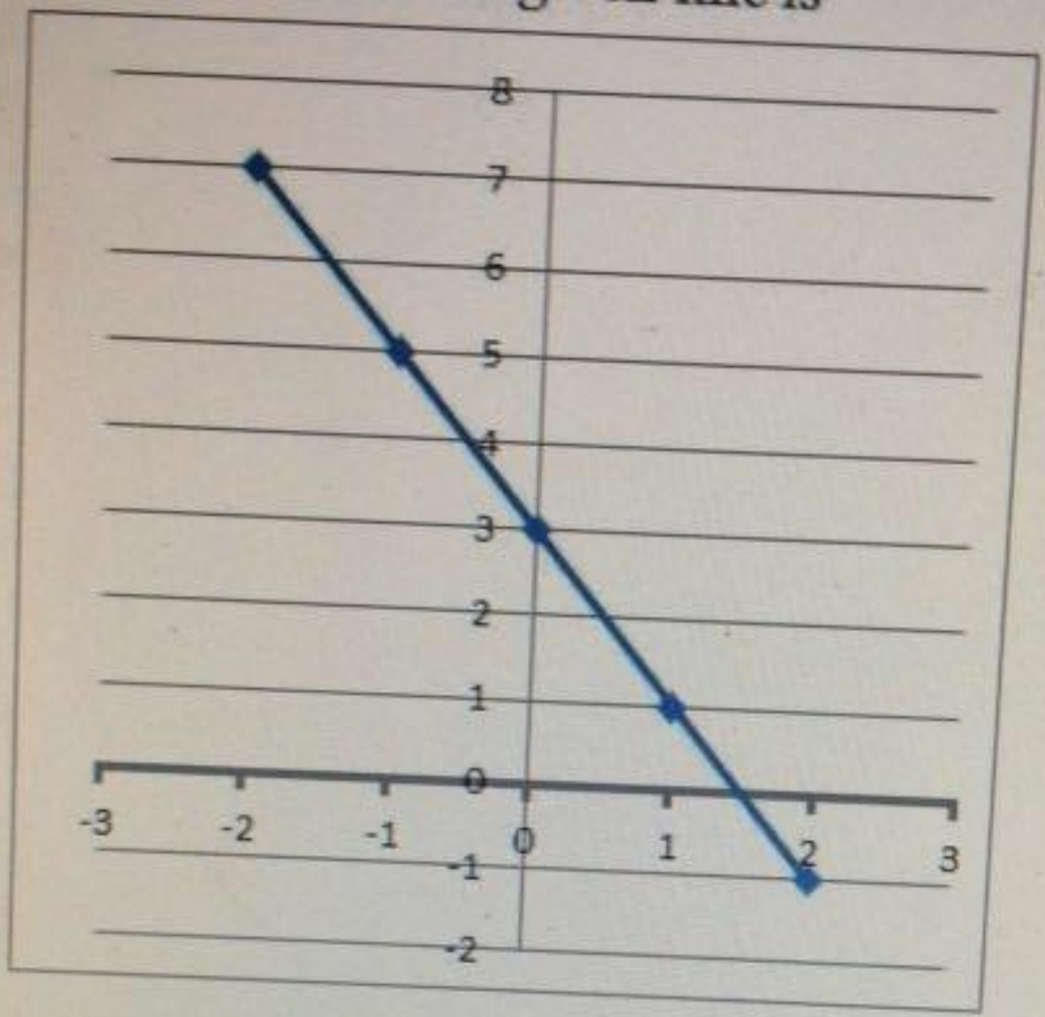
- $b-c<a-c$
- $b-c>a-c$
- $b-c\geq a-c$
- $b-c\leq a-c$

Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+8a+4$

The equation of the given line is

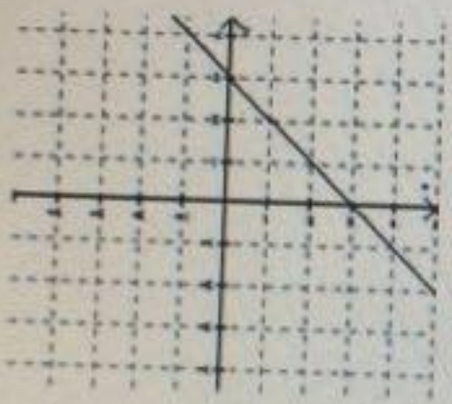


- y = -2x - 1
- y = 2x + 1
- y= -2x + 3
- y = 2x - 3

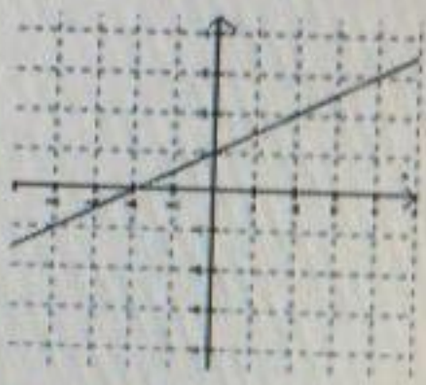
Question No. 11

Which graph has a positive slope?

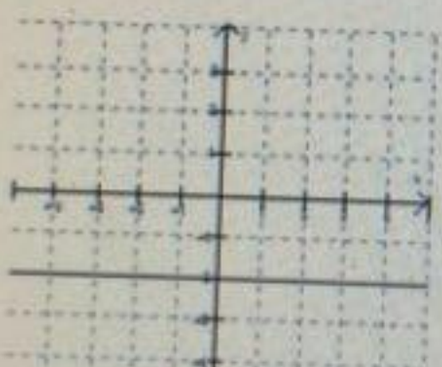
I



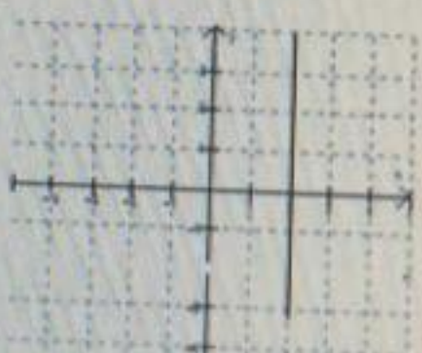
II



III



IV



- IV
- I
- III
- II

Question No. 15

If $f(x)=\frac{3}{x-2}$ and $g(x)=\frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x)=-\frac{1}{x-7}$
- $(f-g)(x)=\frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x)=\frac{-x+23}{(x-2)(x+5)}$

Question No. 19

The range of $f(x) = 4 - x^2$ is

- $(4, \infty)$
- $(-\infty, 4]$
- $(-\infty, \infty)$
- $(-\infty, 4)$

Question No. 9

If $f(x)=(x-1)^2$ then $f(a^3)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^6-2a^3+1
- a^6+a+2

Question No. 10

The range of $f(x) = -x^2$ is

- $(-\infty, -1]$
- $(0, \infty)$
- $(-\infty, 0]$
- $[-1, \infty)$

Question No. 2

The roots of $(m + 5)(m + 6) =$ are

- $m = 8, m = 3$
- $m = -8, m = -3$
- $m = 1, m = 0$
- $m = -5, m = -6$

Question No. 2

The roots of $(m + 5)(m + 6) =$ [redacted] are

- $m = 8, m = 3$
- $m = -8, m = 3$
- $m = 1, m = -3$
- $m = 0$
- $m = -5, m = -6$

Question No. 6

Solve $|x| - 7 = -5$

- {12}
- {2}
- No solution
- {2,-2}

Question No. 26

If $f(x)=-\frac{1}{3}x+1$, the domain of $f^{-1}(x)$ is

- $[0,\infty)$
- $[-3,1)$
- $[-\frac{1}{3},1)$
- all real numbers

Save & Next حفظ والتالي

Find the range for

$$f(x) = -2^{x+1}$$

$$|\sqrt{3}x - \sqrt{3}| = \sqrt{3}$$

$$= \{0, 2\}$$

Question No. 17

Find the axis of symmetry of $y = 2(x-5)^2 + 3$

- y = 3
- x = 3
- y = -3
- x = 5

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Question No. 9

The function $f(x)$ is increasing on an interval I if for $x_1, x_2 \in I$,

- if $x_1 > x_2$, then $f(x_1) \leq f(x_2)$,
- if $x_1 > x_2$, then $f(x_1) < f(x_2)$,
- if $x_1 < x_2$, then $f(x_1) = f(x_2)$.
- if $x_1 < x_2$, then $f(x_1) < f(x_2)$,

Question No. 22

If 'a' is a real number then the remainder of the division $(x^3 + ax^2 + x + 3) \div (x - 1)$ is:

- a + 5
- a + 4
- a + 2
- a + 3

$$3+x < \frac{1-3x}{2} \leq x+8$$

stion No. 17

What is the equivalent equation of $x^2 - 6x + 2 = 0$ by completing the squa

- $(x-3)^2 - 7 = 0$
- $(x-3)^2 - 11 = 0$
- $(x-6)^2 + 2 = 0$
- $(x+3)^2 - 11 = 0$

$y = -3$

$$\frac{3x+4}{2x-1} \leq 0$$

A) $\left(-\infty, -\frac{4}{3}\right) \cup \left(\frac{1}{2}, \infty\right)$

B) $\left[-\frac{4}{3}, \frac{1}{2}\right)$

C) $(-\infty, \infty)$

D) $\left(\frac{1}{2}, \infty\right)$

Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $[-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

+966 53 905 5353 ~...

جاني سؤال

$5^{-x} = -1$

ايش الحل ؟

4:39 PM

$f(x) = x^2 + 2 - 15$.

$g(x) = (x + 3)$

$\left(\frac{f(x)}{g(x)}\right) \Rightarrow$ Domain.

— $(-3, 5)$

— all real number

- all real number exept -3

- ~~$(-\infty,$~~

Question No. 4

Solve $-3(x+4)+2x<6$

- $(18,\infty]$
- $(-18,\infty)$
- $(-\infty,-18)$
- $(-\infty,-18]$

INSTRUCTION: Please choose the BEST answer from the given

Question:

If (a) is a real number then the remainder of the division $(x^3 + 5x^2 + ax - 4) \div (x - 1)$ is:

Options:

- a + 4
- a + 5
- a + 3
- a + 2

Click on the question number to view it.

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18

Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q28 Q29 Q30

DIRECTION: Please choose the BEST answer from the given options for each question.

Question:

Solve this quadratic equation by factoring

$$2x^2 = 18x - 36$$

Options:

- x={-6,3}
- x={3,6}
- x={6,12}
- x={-6, 3}

Click on the question number to view it.

[redacted] Q9A [redacted]

Q9A Q9B Q9C Q9D Q9E Q9F Q9G Q9H Q9I

INSTRUCTION: Please choose the BEST answer from the given options for each question.

Question:

Solve this quadratic equation by factoring

$$2x^2 = 18x - 36$$

Options:

A. x={-6,3}
B. x={3,6}
C. x={6,12}
D. x={-6,-3}

Question No. 6

Solve $-10|x+3| + 7 = -103$

- {8,-14}
- {7,-14}
- {6,14}
- {8,-12}

Question No. 17

Find the equation of the quadratic function that has a vertex at (-4,-4)and has the point (-3,-5) on its graph.

- $f(x) = -x^2 - 8x - 20$
- $f(x) = x^2 + 8x - 4$
- $f(x) = -3x^2 + 8x + 20$
- $f(x) = -x^2 + 4x - 4$

Save & Next जतन व पुढील

Question No. 21

If $f(x)$ is a polynomial such that the remainder of the division $f(x) \div (x-2)$ equals -5 then

- $f(-5) = 2$
- $f(-2) = -5$
- $f(-5) = -2$
- $f(2) = -5$

Question No. 7

The Solution set of $-2|x-7| \leq -28$ is

- $(-\infty, -7] \cup [21, \infty)$
- $\emptyset$
- $-7 \leq x \leq 21$
- $(-\infty, \infty)$

Save & Next محفوظ وتالي

Question No. 29

The graph of $f(x) = -\left(\frac{1}{2}\right)^x$ is

- Constant
- Decreasing
- Increasing
- Decreasing and Increasing

Question No. 25

A function $f(x)$ is one-to-one if

- $a = b \Rightarrow f(a) \neq f(b)$
- $f(a) = f(b) \Rightarrow a \neq b$
- $a \neq b \Rightarrow f(a) \neq f(b)$
- $a \neq b \Rightarrow f(a) = f(b)$

Question No. 28

The range of the function $f(x) = 1 + 2^{5x}$ is

- $(0, \infty)$
- $(1, \infty)$
- $(2, \infty)$
- $(-\infty, \infty)$

Question No. 27

The inverse of $f(x) = (5x - 1)^3$ is

- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x} + 1)$
- $f^{-1}(x) = 5(\sqrt[3]{2x} - 1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{2x} + 1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x} - 1)$

Question No. 29

The horizontal asymptote to the graph of $f(x) = 2^x - 3$.

- $x = -2$
- $y = 3$
- $y = -3$
- $x = 2$

Question No. 4

Solve $6x-4 \geq 2x+16$

- $[5,\infty)$
- $(5,\infty)$
- $[8,\infty)$
- $(3,\infty)$

Question No. 7

The Solution set of $\frac{1}{2}|2x+3|-1>1$ is

- $(-\infty,\infty)$
- $(-\infty,-\frac{7}{2})\cup(\frac{1}{2},\infty)$
- $(-\infty,\frac{1}{2})\cup(\frac{7}{2},\infty)$
- $\emptyset$

Save & Next

Question No. 18

The axis of the graph of $f(x) = x^2 - x + 1$ is

- $y = \frac{1}{2}$
- $x = \frac{-1}{2}$
- $x = \frac{1}{2}$
- $y = \frac{-1}{2}$

Save & Next حفظ وتالي

Question No. 16

If $f(x)=\sqrt{x+2}$ and $g(x)=3x-5$. Find $h(x)=(f\circ g)(x)$

- $h(x)=\sqrt{3x-3}$
- $h(x)=3\sqrt{x-1}$
- $h(x)=\sqrt{3x+3}$
- $h(x)=3\sqrt{x+2}-5$

Save & Next

INSTRUCTION: تعليمات Please choose the BEST answer from the given options for ea

Question:

Solve the inequality $|12 + 3x| > -21$

Options:

- $(-\infty, -11) \cup (3, \infty)$
- $(3, \infty)$
- $(-\infty, \infty)$
- $(-11, 3)$

Q001 Q002 Q003 Q004 Q005 Q006 Q007 Q008 Q009 Q010 Q011 Q012 Q013 Q014 Q015 Q016 Q017

Q018 Q019 Q020 Q021 Q022 Q023 Q024 Q025 Q026

INSTRUCTION: Please choose the BEST answer from the given options for each question.

Question:

Solve this quadratic equation by factoring $2x^2 = 18x - 36$

Options:

A. x={-6,3}
B. x={3,6}
C. x={6,12}
D. x={-6, 3}

2

Q15 Q16 Q17

Instruction: Please choose the BEST answer from the

Question:

Simplify the expression $\sqrt{(x-10)^2}$

Options:

A. $x+10$

B. $|x-10|$

C. $|x+10|$

D. $x-10$

2

INSTRUCTION: — Please choose the BEST answer from the given options for each question.

Question:

The inverse of $f(x)=\frac{\sqrt[3]{x}-5}{2}$ is

Options:

- $f^{-1}(x)=(2x+5)$
- $f^{-1}(x)=\frac{1}{3}(2x+5)$
- $f^{-1}(x)=3(2x+5)$
- $f^{-1}(x)=(2x+5)^3$

4

Question No. 13

Simplify $\frac{x^2-6x+9}{x^2-9}$

- $\frac{x-3}{x-9}$
- $\frac{x+3}{x-3}$
- $\frac{x-6}{x-9}$
- $\frac{x-3}{x+3}$

4

Save & Next حفظ والتالي

Question No. 2

Use set notation, and write the elements belonging to the set
{x |x is a natural number less than 1}

- {0}
- {∅}
- {1}
- ∅

4

Save & Next حفظ و التالي

The quotient of $\frac{6m^3+7m^2-4m+2}{3m+2}$ is

- $2m^2+2m-2+\frac{6}{3m+2}$
- $2m^2+m+2$
- $2m^2-m+2$
- $2m^2+m-2+\frac{6}{3m+2}$

4

Save & Next

Question No. 10

Factor: $2x^2+3x-5$

- $(2x-5)(x-1)$
- $(x+5)(2x-1)$
- $(2x+1)(x+5)$
- $(2x+5)(x-1)$

4

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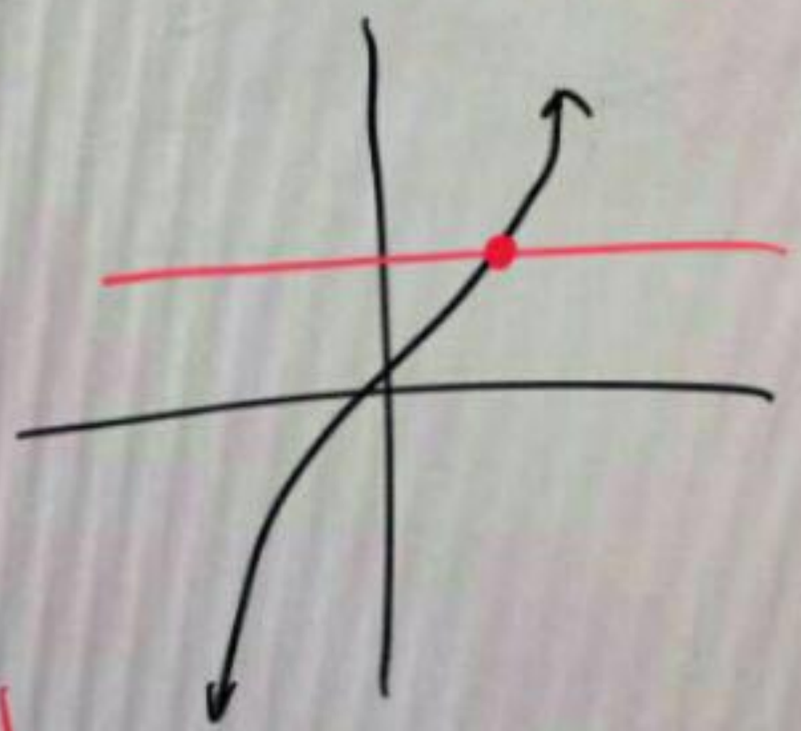
Math

Question No. 25

A function is one-to-one if

- every horizontal line intersects the graph at most once
- every vertical line intersects the graph twice
- every vertical line intersects the graph at most once
- every horizontal line intersects the graph twice



one to one

Question No. 15

If $f(x) = \frac{3}{x-2}$ and $g(x) = \frac{4}{x+5}$. Find the difference of $f(x)$ and $g(x)$

- $(f-g)(x) = -\frac{1}{x-7}$
- $(f-g)(x) = \frac{-x+7}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+3}{(x-2)(x+5)}$
- $(f-g)(x) = \frac{-x+23}{(x-2)(x+5)}$

Find $(f-g)(x)$

$= f(x) - g(x)$

$= \frac{3}{x-2} - \frac{4}{x+5}$

$\frac{(x+5)3}{x-2} - \frac{4(x-2)}{x+5}$

$= \frac{3x+15-4x+8}{(x-2)(x+5)}$

$= \frac{-x+23}{(x-2)(x+5)}$

Question No. 28

The range of the function $f(x) = 1 + 2^{5x}$ is

- $(0, \infty)$
- $(1, \infty)$
- $(2, \infty)$
- $(-\infty, \infty)$

$f(x) = 2^{5x} + 1$

$\therefore$ Range $= (1, \infty)$ ✓✓

$[1, \infty)$

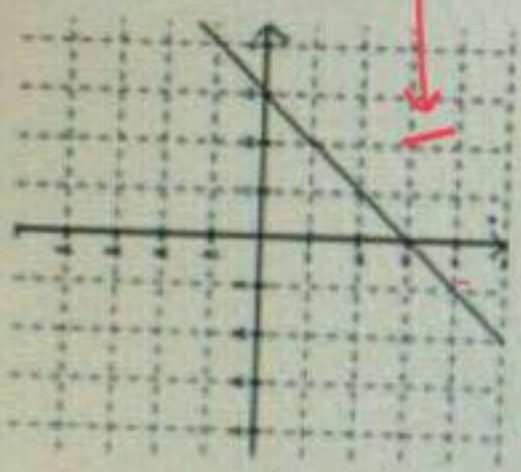
✗

✗

Question No. 11

Which graph has a positive slope?

I



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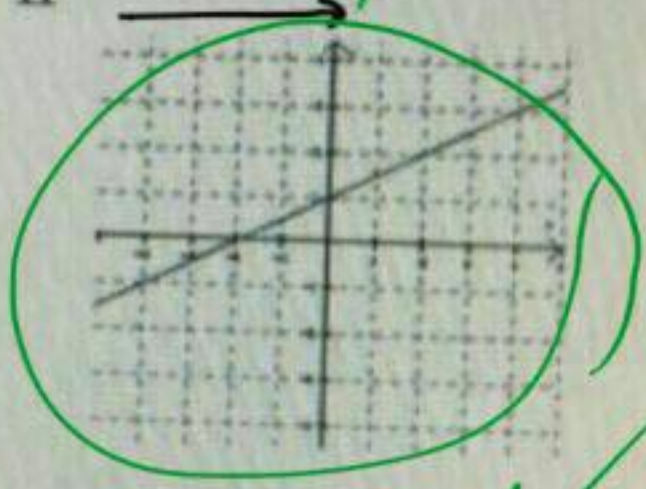
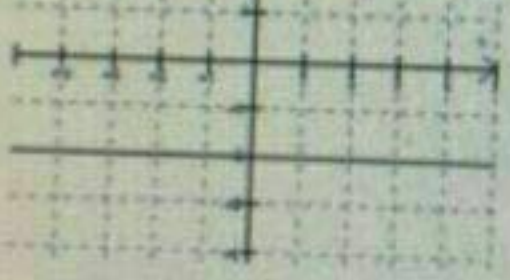
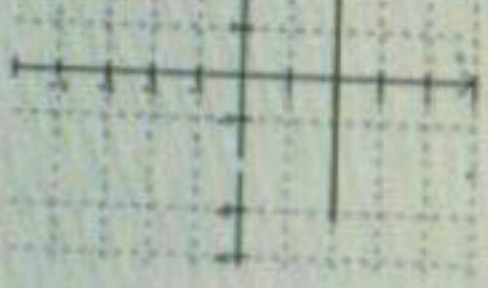


III



IV



- IV
- I
- III
- II

Question No. 27

The inverse of $f(x) = (5x-1)^3$ is

- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}+1)$
- $f^{-1}(x) = 5(\sqrt[3]{2x}-1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{2x}+1)$
- $f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}-1)$

$y = (5x-1)^3$

$x = (5y-1)^3$

$\sqrt[3]{x} = 5y-1$

$5y = \sqrt[3]{x}+1$

$y = \frac{\sqrt[3]{x}+1}{5}$

$f^{-1}(x) = \frac{1}{5}(\sqrt[3]{x}+1)$

Question No. 7

The Solution set of $-2|x-7| \leq -28$ is

- $(-\infty, -7] \cup [21, \infty)$
- $\emptyset$
- $-7 \leq x \leq 21$
- $(-\infty, \infty)$

$-2|x-7| \leq -28$

$|x-7| \leq 14$

either $x-7 \geq 14$ or $x-7 \leq -14$

$x \geq 21$

$[21, \infty)$

$x \leq -7$

$= (-\infty, -7]$

$\therefore (-\infty, -7] \cup [21, \infty)$

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Question No. 3

If a>b and c is a real number, then

assume $a = 4$, $b = 3$ $c = 1$

- $b - c < a - c$ $= 3 - 1 < 4 - 1$??
- $b - c > a - c$ $2 < 3$
- $b - c \geq a - c$
- $b - c \leq a - c$

Question No. 26

If $f(x) = -\frac{1}{3}x + 1$, the domain of $f^{-1}(x)$ is

- all real numbers
- $[-\frac{1}{3}, 1)$
- $[0, \infty)$
- $[-3, 1)$

Domain of $f^{-1}(x)$ = range $f(x)$

Range $f(x) = R$

So :: Domain $f^{-1}(x) = R$

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Question No. 8

If $f(x)=3x^2+2x-1$ then $f(a+1)=$

- $3a^2+2a-1$
- a^2+2a-1
- a^4+2a^2-1
- $3a^2+8a+4$

$f(a+1) = 3(a+1)^2 + 2(a+1) - 1$

$= 3(a^2+2a+1) + 2a + 2 - 1$

$= 6a^2 + 6a + 3 + 2a + 1$

$= 6x^2 + 8a + 4$

Question No. 10

The domain of $f(x)=\frac{1}{\sqrt{4-x^2}}$ is

- $(-2,2)$
- $(-\infty,-2)\cup(-2,\infty)$
- $(-\infty,2)\cup(2,\infty)$
- $(-\infty,-2)\cup(2,\infty)$

Domain $f(x)$

$\sqrt{4-x^2} \neq 0$

$4-x^2 \neq 0$

$-x^2+4 \neq 0$

$-x^2 \neq -4$

$x^2 \neq 4$

$x \neq 2,-2$

$\therefore R/\{2,-2\}$

$= (-\infty,-2)\cup(2,\infty)$

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Question No. 12

Give the slope of the line $4y - 8x + 28 = 0$

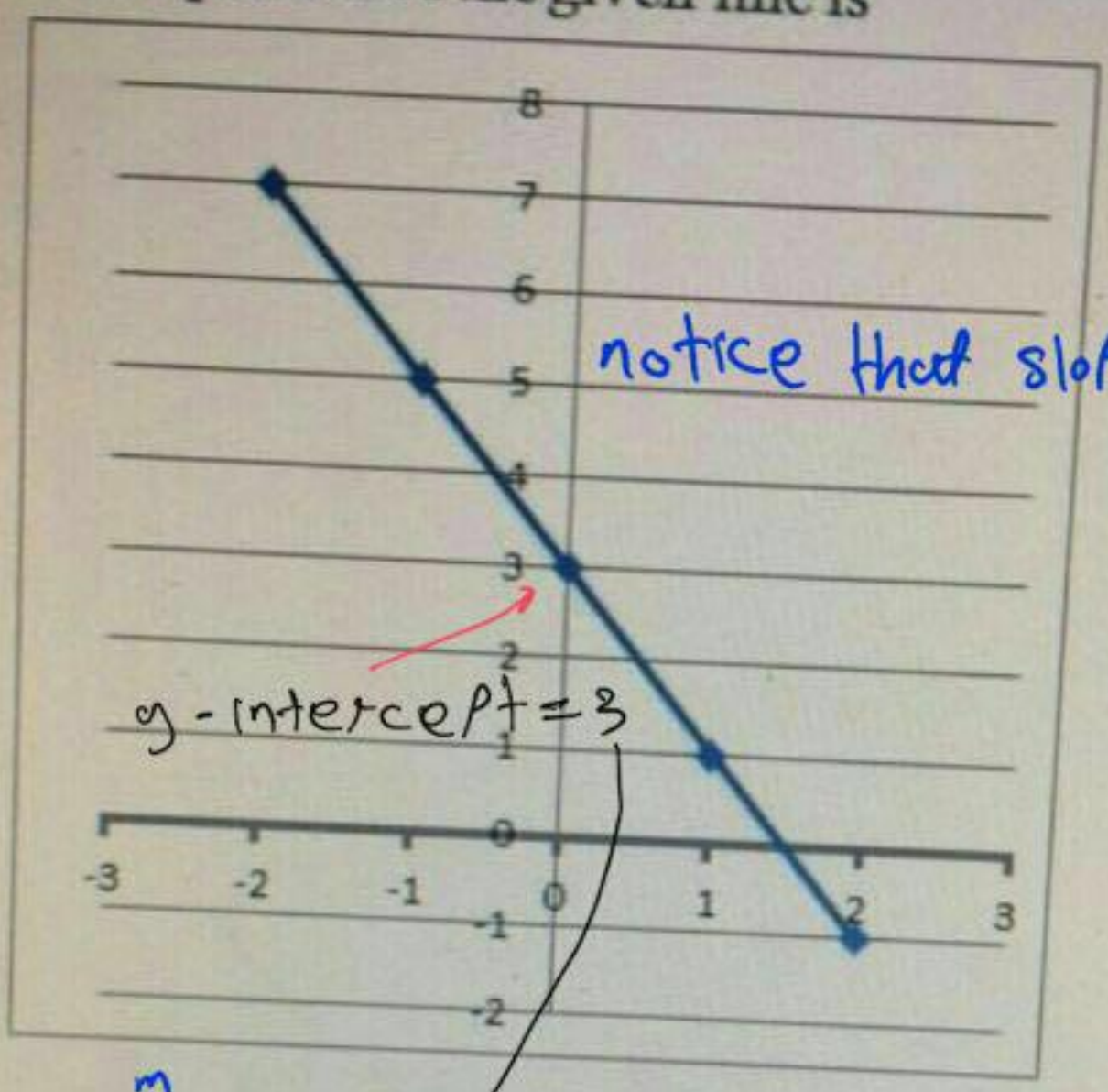
- -7
- -2
- 7
- 2

write as slope-intercept
- divide all by 4

$y - 2x + 7 = 0$

$y = \underbrace{2}_{m}x - \underbrace{7}_{y\text{-intercept}}$

The equation of the given line is



notice that slope is negative

y-intercept = 3

m

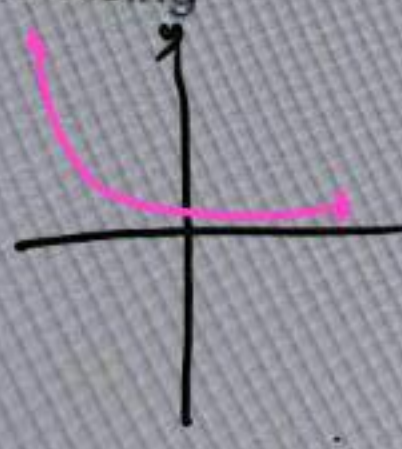
- y = -2x - 1
- y = 2x + 1
- y= -2x + 3
- y = 2x - 3

Question No. 29

The graph of $f(x) = -\left(\frac{1}{2}\right)^x$ is

- Constant
- Decreasing
- Increasing
- Decreasing and Increasing

$f(x) = \left(\frac{1}{2}\right)^x$ is



decreasing

Then add the negative sign

it will be increasing

Question No. 2

The roots of $(m+5)(m+6) = 6$ are

- $m = 8, m = 3$
- $m = -8, m = -3$
- $m = 1, m = 0$
- $m = -5, m = -6$

$(m+5)(m+6) = 6$

– multiply $m^2 + 6m + 5m + 30 = 6$

$m^2 + 11m + 24 = 0$

$m + 8$

$m + 3$

$\therefore (m+8)(m+3) = 0$

$m = -8, -3$

Question No. 10

The domain of $f(x)=\frac{1}{\sqrt{4-x^2}}$ is

- $(-2,2)$
- $(-\infty,-2)\cup(-2,\infty)$
- $(-\infty,2)\cup(2,\infty)$
- $(-\infty,-2)\cup(2,\infty)$

$4-x^2 \geq 0$

$4 \geq x^2$

$x^2 \leq 4$

$x \geq -2,\ x \leq 2$

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