Simplify: $\sqrt[8]{(x-7)^8}$

- $|x-7|$
- $(x-7)$
- $|x-7|^8$
- $(7-x)$

Question No. 6

Perform the indicated operations and Simplify. $\frac{a-b}{b-a} \div \frac{a^2+2ab+b^2}{a^2+ab}$

- $\frac{a}{a+b}$
- $\frac{-a}{a+b}$
- $\frac{a+b}{a}$
- $\frac{-a+b}{a}$

$$\frac{a-b}{-(a-b)} \times \frac{a(a+b)}{(a+b)^2}$$

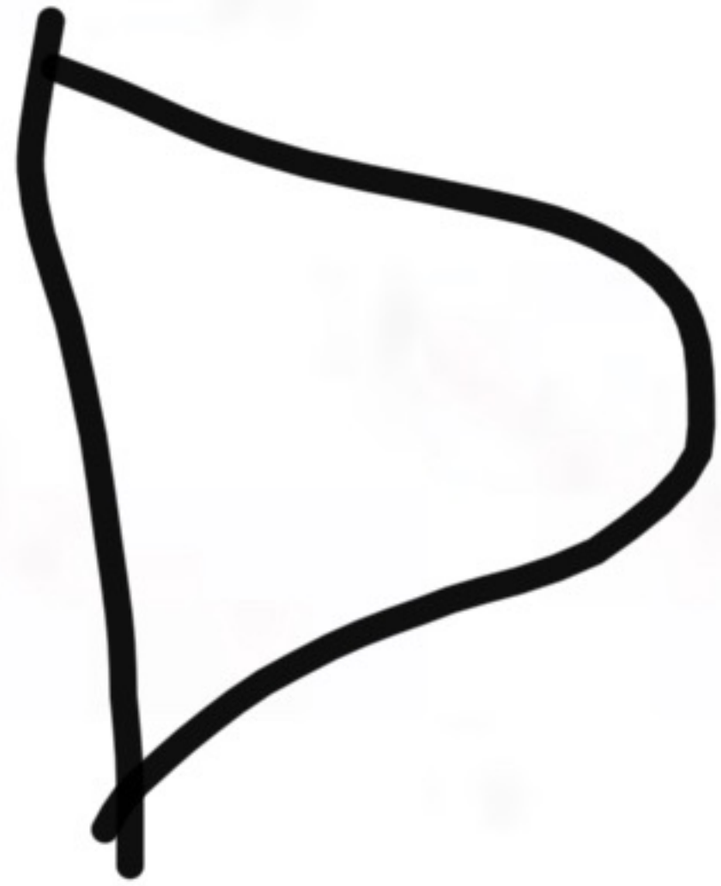
$$= \frac{a}{(a+b)}$$

B

Question No. 6

If $A=\{1,2,3\}$ and $B=\{0,1,2,3\}$ then

- $A = B$
- A and B are disjoints sets
- $B \subseteq A$
- $A \subseteq B$



Question No. 21

Which one of the following equations is an identity?

- $3(5x-3)=15x+19$
- $-2(x+6)+3x=x-12$
- $x^2-1=0$
- $\frac{5}{3}x-\frac{4}{3}=11$

MKCL OES

Question No. 20

Which one of the following equations is a conditional linear equation?

- $\frac{5}{3}x - \frac{4}{3} = 11$
- $-2(x+6) + 3x = x - 12$
- $x^2 - 1 = 0$
- $3(5x - 3) = 15x + 19$

Question No. 2

If a, b and c are real numbers with a = b, then

- a + c = - (b + c)
- a + c = b + c
- a + c < b + c
- a + c > b + c

B

Question No. 25

The equation $-2x^2 + 13x - 15 = 0$ has

- two irrational roots
- one repeated root
- two nonreal complex roots
- two rational roots

D

Question No. 12

Using set notation, write the elements belonging to the set
{x | x is a natural odd number between 2 and 14}.

- {3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13}.
- {3, 5, 7, 9, 11, 13}.
- {1, 3, 5, 7, 9, 11, 13}.
- {4, 6, 8, 10, 12}.

B

MKCL OES

Total questions in exam: **25** | Answered: **3**

Question No. 14

The domain of $\frac{x+1}{(x+3)(2x-3)}$ is

- $R \setminus \{-3, \frac{3}{2}\}$
- $R \setminus \{3, \frac{-3}{2}\}$
- $R \setminus \{-3, 3\}$
- $R \setminus \{-3\}$

Total questions in exam: **25** | Answered: **0**

Question No. 21

Using set notation, write the elements belonging to the set

$$\{x \mid x = n^3, n \text{ is a natural number less than or equal to } 4\}.$$

- {1, 8, 27}.
- {1, 2, 3, 4}.
- {1, 2, 3}.
- {1, 8, 27, 64}.

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MKCL OES

Total questions in exam: **25** | Answered: **21**

Question No. 17

The domain of the function $\frac{3x+2}{2x^2+7x-4}$ is

- $\mathbb{R} \setminus \{-\frac{1}{2}, 4\}$
- $\mathbb{R} \setminus \{\frac{1}{2}, -4\}$
- $\mathbb{R} \setminus \{1, 4\}$
- $\mathbb{R} \setminus \{-\frac{1}{2}, -4\}$

Question No: 4

Suppose $r \in \mathbb{R}; r \neq 0$. Factor out the least power of r from $6r^{-2/3} - 5r^{-5/3}$

- $r^{-2/3}(6 - 5r)$
- $r^{-5/3}(6r - 5)$
- $r^{-5/3}(5r - 6)$
- $r^{-2/3}(6 - 5r^{-1})$

B

عند التعويض بالحاسبه بيطلع لك الجواب B و D لاكن هو طالب بالسؤال (اقل اس) فالجواب يكون B لانه r اسها 5/3-

Question No. 10

Solving the equation 2AP-3rt=5Prt for P gives

- $P = \frac{2A}{rt}$
- $P = \frac{2A-3P}{rt}$
- $P = \frac{2A-5Prt}{3rt}$
- $P = \frac{3rt}{2A-5rt}$

Question No. 9

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

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

Total questions in exam: **25** | Answered: **0**

Question No. 2

Solve $A = P(1 + nr)$ for r

- $r = \frac{A-P}{Pn}$
- $r = \frac{Pn}{A-P}$
- $r = \frac{A}{n}$
- $r = \frac{P-A}{Pn}$

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Total questions in exam: **25** | Answered: **0**

Question No. 2

Simplifying the power of i^{1235} gives

- -3i
- 3+i
- 1235
- -i

Total questions in exam: **25** | Answered: **0**

Question No. 3

Let $x \neq 0, y \neq 0$ and $x \neq -y$. Then $(x^{-1} + y^{-1})(x + y)^{-1}$ is equal to

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

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Total questions in exam: 25 | Answered: 3

Question No. 13

Which one of the following equations is not a linear equation?

- $x - 1 = 0$
- $\left(\frac{23}{4}\right)^2 x + 0.5(2x + 4) = -3x$
- $3x^3 - \frac{4}{3}x + 1 = 0$
- $0.02x - 0.002x = 0.50$

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Total questions in exam: **25** | Answered: **0**

Question No. 1

The exponent of $(2xy)^3$ is

- 2xy
- 6
- 2
- 3

Total questions in exam: 25 | Answered: 0

Question No. 9

Let $x \in \mathbb{R}$ and $x > 4$. Simplify the expression $\sqrt{x - 4\sqrt{x} + 4}$

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

Question No. 25

Solving the equation 2(3x-4a)+4b=5x+4(b-a) for x gives

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

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Total questions in exam: 25 | Answered: 5

Question No. 1

Use the discriminate to determine the type of the solution for:

$$4x^2 = 6x - 7$$

- 2 irrational solutions
- 2 complex solutions
- 1 rational solution
- 2 rational solutions

120

Question No. 11

The imaginary unit i equal to

- -1
- $-\sqrt{-1}$
- $(-1)^2$
- $\sqrt{-1}$

D

Question No. 8

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

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

D

Question No. 10

The equation $x^2 + 225 = 0$ has

- 2 real solutions
- 2 imaginary solutions
- 1 real solution
- No solution

B

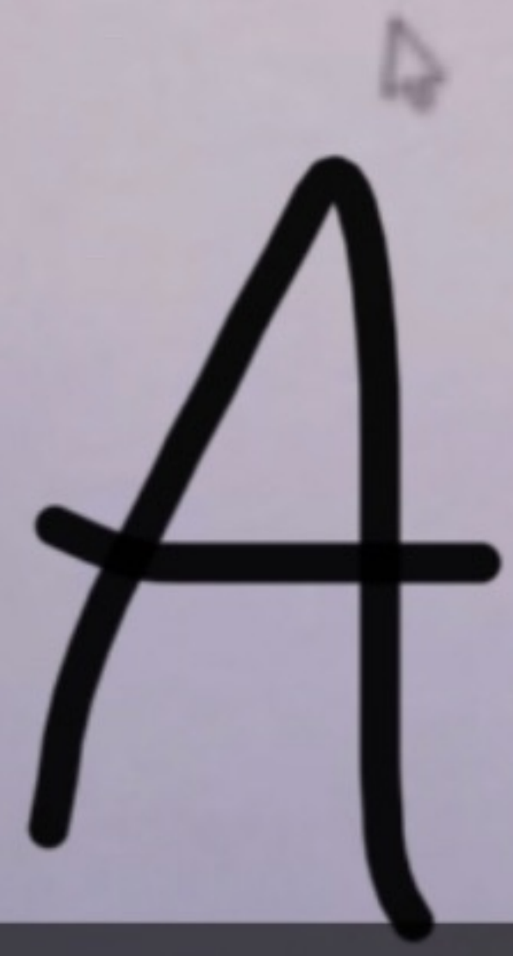
Total questions in exam: **25** | Answered: **12**

Question No. 14

Use the quadratic formula to solve this equation:

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

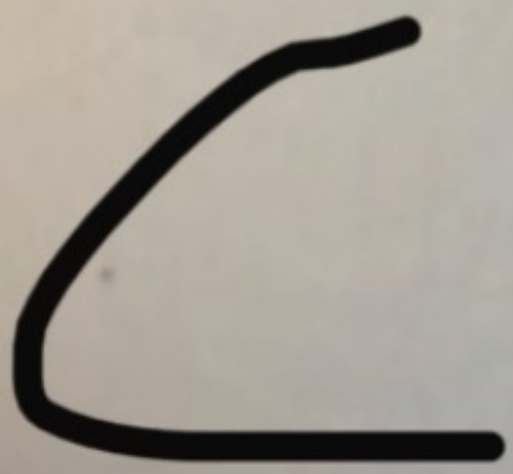
- $x = -2 \pm \sqrt{7}$
- $x = -2 \pm 2\sqrt{7}$
- $x = -1 \pm \sqrt{7}$
- $x = 2 \pm \sqrt{7}$



Question No. 8

Factor the polynomial $x^4 + 5x^2 - 36$ completely

- $(x^2 - 4)(x^2 + 9)$
- $(x + 2)(x^2 + 9)$
- $(x - 2)(x + 2)(x^2 + 9)$
- $(x - 2)(x + 2)(x + 3)(x - 3)$



الجواب A صحيح لاكن C اصح منه لانه لازم تفك المربع

Total questions in exam: **25** | Answered: **1**

Question No. 2

Factor: $6x^2 - x - 15$

- $(2x - 3)(3x - 5)$
- $(2x + 3)(3x - 5)$
- $(6x + 3)(x - 5)$
- $(6x - 3)(x + 5)$

B

Question No. 5

Q. 3 means that

a+a+a

3a

(3+3+3)a

a.a.a

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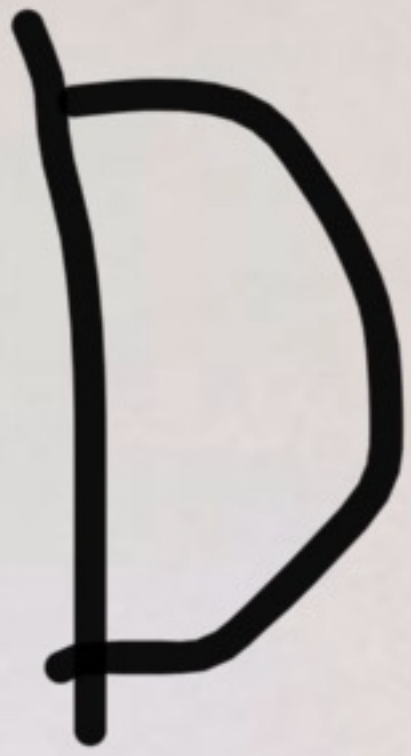
Total questions in exam: 25 | Answered: 14

Question No. 23

Suppose x is a real number. Evaluate the expression $-3(x-1)^0$

- 3 if $x \neq 0$
- -3
- -3 if $x \neq 0$
- -3 if $x \neq 1$



Next

Question No. 21

The degree of the quotient of the division $(7x^4 - 4x^3 + 6x - 5) \div (x + 2)$ equals:

- 6
- 4
- 5
- 3

D

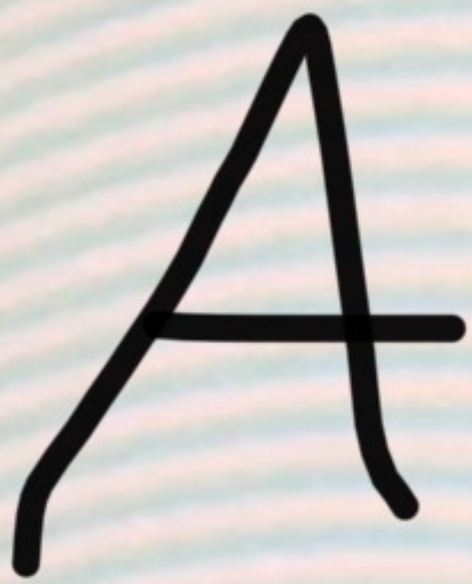
Total questions in exam: **25** | Answered: **9**

Question No. 9

Suppose that $n \in \mathbb{N}$ and $n < 4$. The degree of the polynomial

$$(x^n y^4 - 2x^2 y + x^3 y).(y^n x^2 - 3x^n y + 5y^9) \text{ is}$$

- n + 13
- 13
- (n + 4)(n + 2)
- 12



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Total questions in exam: **25** | Answered: **8**

Question No. 1

Perform this division $(6m^2+13m-15)\div(m+3)$

- $6m-5$
- $6m-5+\frac{4}{m-5}$
- $m-5$
- $6m+5$

Question No. 20

Perform the division $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3}$

- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 + 1 - \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = -x^2y^2 + 1 - \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 - 1 + \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 + 1 + \dfrac{2}{xy - 3}$

D

Dividing the polynomial $y^3 - 8$ by $2 - y$ gives

- $-y^2 - 2y - 4$
- $y^2 + 2y + 4$
- $y^2 - 2y + 4$
- $y^2 - 2y - 4$

A

Question No. 14

The simplified expression of $(-9)^{x/y}$ is positive if the values of x and y are equal to

- $x = 6,\ y = 2$
- $x = 2,\ y = 2$
- $x = 9,\ y = 3$
- $x = 8,\ y = 2$

D

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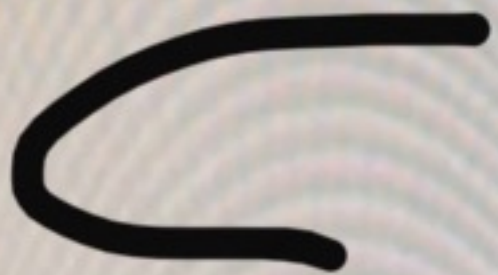
Total questions in exam: **25** | Answered: **0**

Question No. 1

The expression $8z^6 + 3z^5 + 4z$ can be classified as a

- none of these
- monomial
- trinomial
- binomial



Question No. 10

Dividing $-33x^8 - 9x^6 + 30x^4 - 21x^2$ by $-3x^2$ gives

- $11x^6 + 3x^4 - 11x^2 + 7$
- $11x^6 + 3x^4 - 11x^2 + 7x$
- $11x^6 + 3x^4 - 10x^2 + 7$
- $11x^6 + 3x^4 - 10x^2 - 7$

C

Total questions in exam: 25 | Answered: 0

Question No. 7

The expression $x\,y\,z$ can be classified as a

- monomial
- binomial
- trinomial
- none of these

A

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Question No. 4

Select the correct property that describes the given equation.
11 + (−11) = 0

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

Question No. 4

Select the equation that illustrates the distributive property.

- $4 \times 1 = 4$
- $4 \times (6 + 7) = 4 \times 6 + 4 \times 7$
- $4 + 6 = 6 + 4$
- $4 + (6 + 7) = (4 + 6) + 7$

B

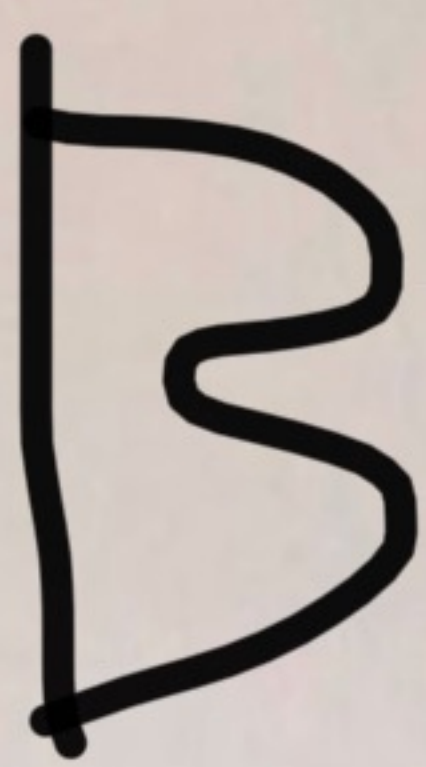
Total questions in exam: **25** | Answered: **3**

Question No. 1

Select the correct property that describes the given equation.

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

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



Maths_Sem1_Qu

Question No. 8

The elements from $A = \{-8, -2, 0.5, \frac{10}{5}, \sqrt{25}, \sqrt{10}, \pi, 7\}$ that belong to the set of rational numbers are

- $\{-8, -2, 0.5, \frac{10}{5}, \sqrt{25}, \pi, 7\}$
- $\{-8, -2, 0.5, \frac{10}{5}, \sqrt{25}, \sqrt{10}, 7\}$
- $\{-8, -2, 0.5, \frac{10}{5}, \sqrt{25}, 7\}$
- $\{-8, -2, 0.5, \frac{10}{5}, \sqrt{25}\}$

Total questions in exam: **25** | Answered: 11

Question No. 12

The set of irrational numbers from $\{-7, -\sqrt{5}, -2, -\frac{1}{6}, 0, 1, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$ is

- $\{-\sqrt{5}, -\frac{1}{6}, 0, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$
- $\{-\sqrt{5}, \sqrt{25}\}$
- $\{-7, -2\}$
- $\{-\sqrt{5}\}$

D

Question No. 19

Select the correct property that describes the given equation.

$15 \times (7 + 9) = 15 \times 7 + 15 \times 9$

- Distributive property
- Identity property of addition
- Commutative property of addition
- Inverse property of addition

A

Use set builder notation to represent the set A = {3, 6, 9, 12, 15, 18, 21, 24, 27, 30}

- $A = \{x \mid x \in \mathbb{N}\}$
- $A = \{x \mid x \in \mathbb{N}, x < 31\}$
- $A = \{x \mid x \in \mathbb{N}, 1 < x < 31\}$
- $A = \{x \mid x \in \mathbb{N}, 1 < x < 31, x = 3n, n \in \mathbb{N}\}$

D

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Total questions in exam: **25** | Answered: **11**

Question No. 21

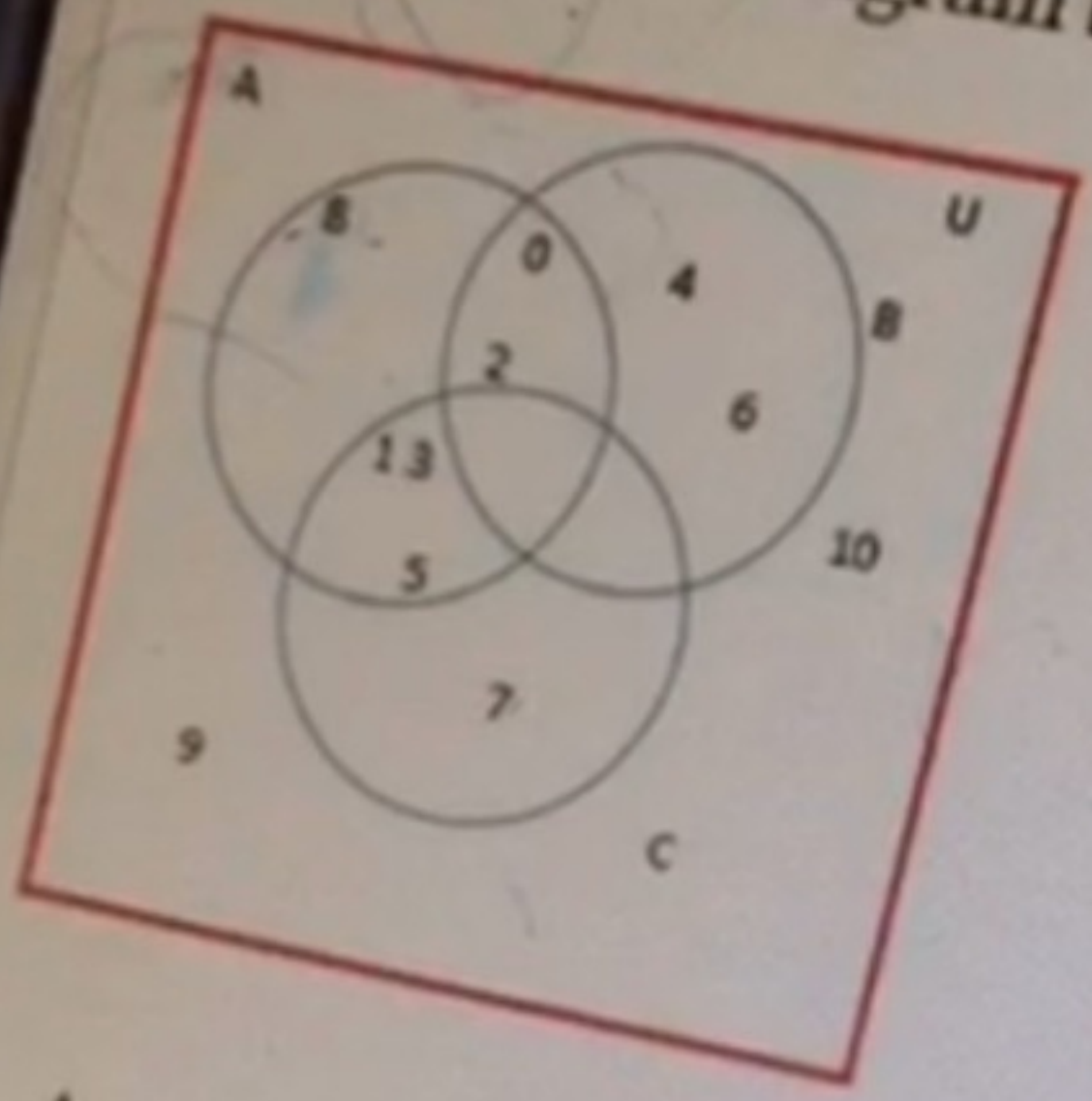
Select the correct property that describes the given equation.

$(8 \times 12) \times 3 = 8 \times (12 \times 3)$

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

A

Use the Venn diagram to determine $A \cap B'$.



- $A \cap B' = \{0, 2\}$
- $A \cap B' = \{0, 1, 2, 3, 5\}$
- $A \cap B' = \{1, 3, 5, 8\}$
- $A \cap B' = \{\}$

Question No. 2

The following expression [1,4,7] ∩ [4,5] is equivalent to

- [1,4,5,7]
- [1,4,6]
- ∅
- [4]

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Total questions in exam: **25** | Answered: **8**

Question No. 5

If U is a universal set then the complement of U is equal to

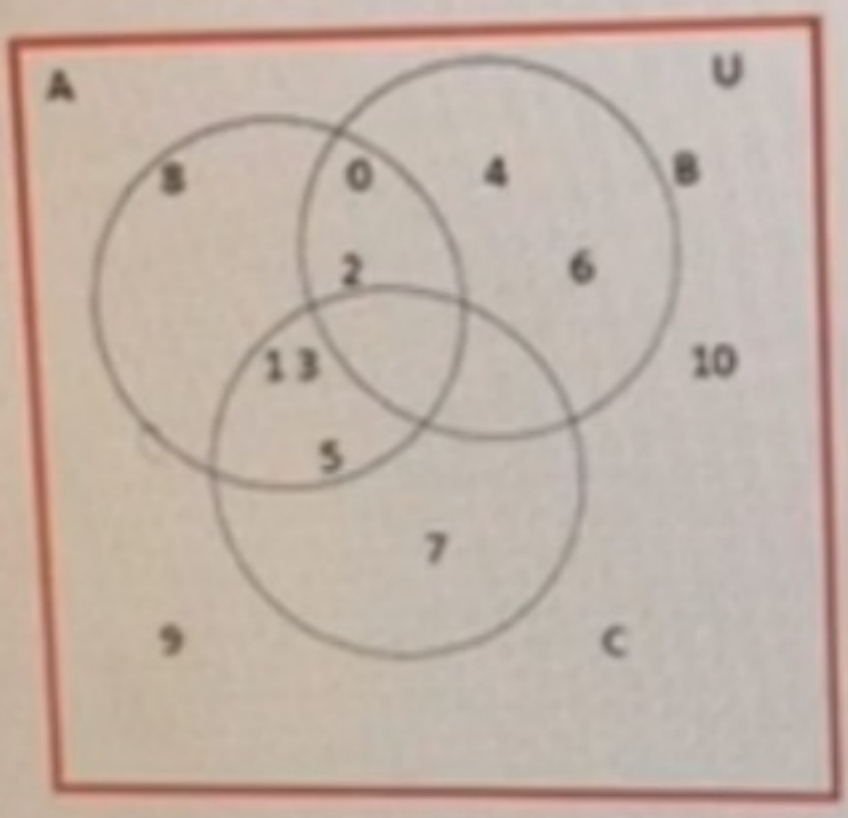
- $\emptyset$
- -1
- U
- 1

A

Total questions in exam: 25 | Answered: 6

Question No. 7

Use the Venn diagram to determine U

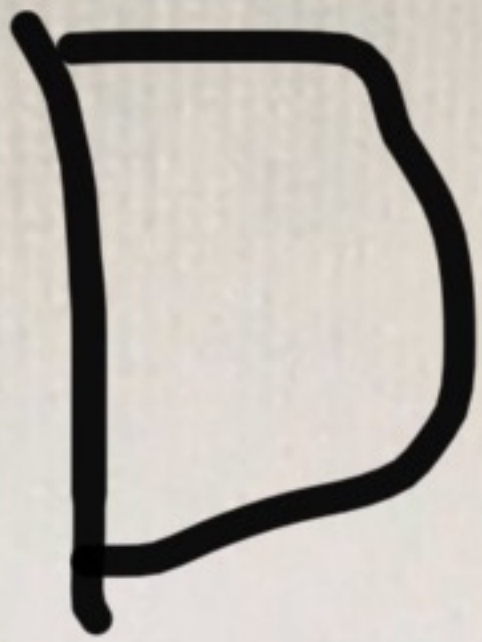


- U = {9, 10}
- U = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
- U = { }
- U = {0, 1, 2, 3, 4, 5, 6, 7, 8}

Question No. 10

The union {1, 2, 3, 5, 6, 7} ∪ {4, 5, 6, 10} is

- ∅
- {1, 2, 3, 4, 6, 7, 10}
- {5, 6}
- {1, 2, 3, 4, 5, 6, 7, 10}



Question No. 3

Given that $A = \{2,5\}$ and $B = \{7\}$ then

- $A \cap B = \{7\}$
- $B \subseteq A$
- A and B are disjointsets
- $A \cup B = \{2,5\}$

C

Question No. 10

Using set notation, the elements belonging to the set: {x| x is a natural number less than 2} are

- ∅
- {∅}
- {1}
- {0}

Question No. 8

Let $U = \{-2,-1,1,2,3,4\}$, $A = \{-1,2,4\}$ and $B = \{-2,-1,3\}$, then $A' \cap B =$

- $\emptyset$
- $\{-2,3\}$
- $\{3\}$
- $\{-2,-1,3\}$

B

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Total questions in exam: **25** | Answered: **0**

Question No. 1

If A is any set then $A \cup \emptyset$ is equal to

- 1
- A
- Ø
- -1

B

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Total questions in exam: 25 | Answered: 11

Question No. 17

Let U = {1, 2, 3, 4, 5, 6, 7}, and A = {1, 3, 5, 7} the complement of A is

- {1, 2, 3, 4, 5, 6, 7}
- ∅
- {2, 4, 6}
- {1, 3, 5, 7}

Question No. 11

The intersection $\{4, 6, 8, 10, 12, 14\} \cap \{4, 5, 6, 10\}$ gives

- $\{4, 6, 10\}$
- $\{4, 6, 8, 10, 12, 14\}$
- $\emptyset$
- $\{4, 6, 8, 10\}$

A

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Total questions in exam: 25 | Answered: 0

Question No. 12

Determine the following intersection $\emptyset \cap \{6,7\} =$

- $\emptyset$
- $\{6,7\}$
- $\{7\}$
- $\{6\}$

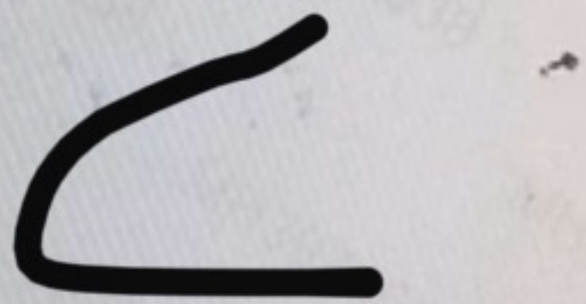
Question No. 24

If A={1,2,3,4,5,6} then

- $\{1,4\} \subseteq A$
- $1 \notin A$
- $\{0,1\} \subseteq A$
- $\{1\} \in A$

Let $U = \{-3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}$, $A = \{-2, 0, 2, 4, 6\}$, and $B = \{0, 1, 2, 3, 4, 5, 6\}$.
Find $(A \cap B)'$.

- {}.
- {-3, -2, -1, 1, 4, 6}.
- {-3, -2, -1, 1, 3, 5}.
- {-3, -2, -1, 1, 3, 5, 6}.



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Total questions in exam: **25** | Answered: **5**

Question No. 6

Evaluate $-\left(\frac{27x^3}{64}\right)^{-4/3}$

- $-\frac{256}{81x^4}$
- $\frac{81x^4}{256}$
- $-\frac{81x^4}{256}$
- $\frac{256}{81x^4}$

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Math_Quiz1_Se

Total questions in exam: **25** | Answered: **2**

Question No. 4

Find the value of the discriminate for this equation $x^2 + 5x - 6 = 0$

- 7
- 49
- 0
- 1

Save & Next

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$B^2 - 4ac$

B

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Total questions in exam: **25** | Answered: **12**

Question No. 13

Find the quotient $\frac{x+1}{x-1} \div \frac{x^2-1}{x^3-1}$

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

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Online Evaluation System

Total questions in exam: **25** | Answered: **12**

Question No. 15

Factor : $(4x-y)^3-125$

- $((4x-y)+5)((4x-y)^2-5(4x-y)+25)$
- $((4x-y)+5)((4x-y)^2-10(4x-y)+25)$
- $((4x-y)-5)((4x-y)^2+5(4x-y)+25)$
- $((4x-y)-5)((4x-y)^2+10(4x-y)+25)$

$(4x-y)^3-5^3$

$[(4x-y)-5][(4x-y)^2+5(4x-y)+25]$

Save & Next

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Mat

Total questions in exam: **25** | Answered: **0**

Question No. 1

The solution set of the equation $6(x-2)=2-x$ is

- ∅
- {2}
- 2
- {2, -2}

B

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Online Evaluation System

Total questions in exam: **25** | Answered: **3**

Question No. 4

Simplify $(-5p^4)(-8p^3)$

- $-40p^{12}$
- $40p^{12}$
- $40p^7$
- $-40p^7$

$(-5 \times -8)\, p^{4+3}$

$40\, p^7$

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Total questions in exam: **25** | Answered: **0**

Question No. 1

The value of $\sqrt{-4}$ is

- 2
- 2i
- -2
- -2i

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Total questions in exam: **25** | Answered: **1**

Question No. 2

Factor: $6x^2 - x - 15$

- $(2x - 3)(3x - 5)$
- $(2x + 3)(3x - 5)$
- $(6x + 3)(x - 5)$
- $(6x - 3)(x + 5)$

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Total questions in exam: **25** | Answered: 2

Question No. 3

Perform the indicated operation.

$$(-4+8i) \div -6i$$

- $\frac{4}{3}-\frac{2}{3}i$
- $\frac{4}{3}+\frac{2}{3}i$
- $-\frac{4}{3}+\frac{2}{3}i$
- $-\frac{4}{3}-\frac{2}{3}i$

الجواب

Mode → 2

Total questions in exam: **25** | Answered: **7**

Question No. 4

Simplify $\left[\frac{x^2y^{-2/3}}{x^{-1/2}y^{-3}}\right]^{-1/7}$

- $\frac{1}{x^{5/14}y^{1/3}}$
- $\frac{1}{x^{3/14}y^{1/3}}$
- $\frac{1}{x^{3/14}y^{11/21}}$
- $x^{5/14}y^{1/3}$

$= \left[\frac{x^{-\frac{1}{2}}\, y^{-3}}{x^2\, y^{-\frac{2}{3}}}\right]^{\frac{1}{7}}$

$= \left[\frac{y^{\frac{2}{3}}}{x^2 \cdot x^{\frac{1}{2}} \cdot y^3}\right]^{\frac{1}{7}}$

$= \frac{y^{\frac{2}{21}}}{x^{\frac{5}{14}} \cdot y^{\frac{3}{7}}} = \frac{y^{\frac{2}{21} - \frac{3}{7}}}{x^{\frac{5}{14}}}$

$= \frac{y^{-\frac{1}{3}}}{x^{\frac{5}{14}}} = \frac{1}{x^{\frac{5}{14}}\, y^{\frac{1}{3}}}$

MKCL OES
Online Evaluation System

Total questions in exam: **25** | Answered: 7

Question No. 5

The solution set of the equation 2(x+3)=2x-6 is

$2x+6=2x-6$

$-2x \quad -2x$

$6 \neq -6$

- ∅
- 1
- All real numbers
- {2,3}

MKCL OES

Total questions in exam: 25 | Answered: 12

Question No. 20

Perform the division $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3}$

- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 + 1 - \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = -x^2y^2 + 1 - \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 - 1 + \dfrac{2}{xy - 3}$
- $\dfrac{x^3y^3 - 3x^2y^2 + xy - 1}{xy - 3} = x^2y^2 + 1 + \dfrac{2}{xy - 3}$

$x^2y^2 + 1$

$xy - 3 \;\overline{)\; x^3y^3 - 3x^2y^2 + xy - 1}$

$x^3y^3 - 3x^2y^2$

$xy - 1$

$xy - 3$

2

Save & Next

MKCL OES

Total questions in exam: 25 | Answered: 11

Question No. 12

The set of irrational numbers from $\{-7, -\sqrt{5}, -2, -\frac{1}{6}, 0, 1, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$ is

- $\{-\sqrt{5}, -\frac{1}{6}, 0, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$
- $\{-\sqrt{5}, \sqrt{25}\}$
- $\{-7, -2\}$
- $\{-\sqrt{5}\}$

Save & Next जतन करून पुढे

MKCL OES

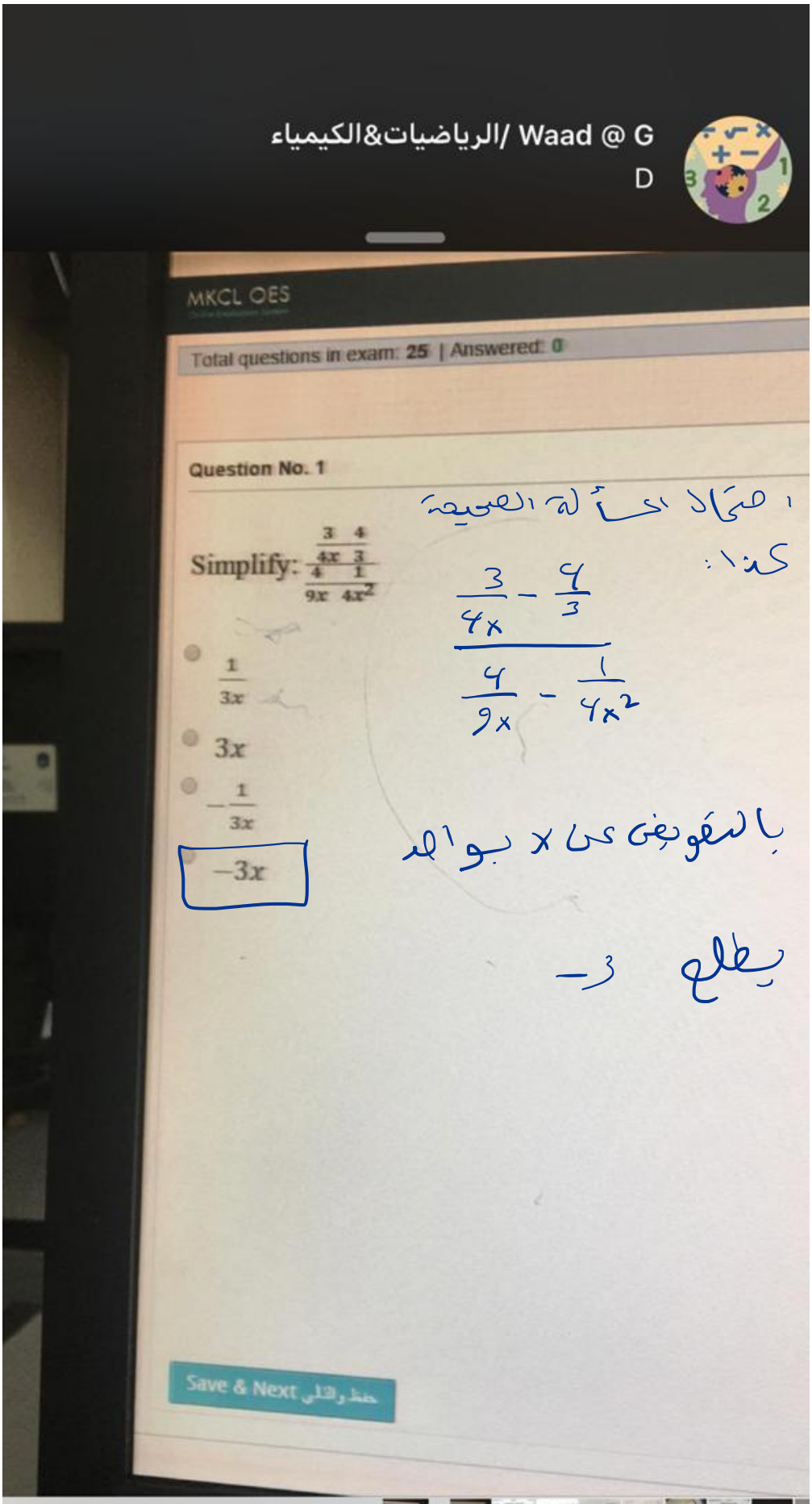
Total questions in exam: 25 | Answered: 11

Question No. 16

Solve $\frac{5x}{3} - x = \frac{x}{24} - \frac{7}{8}$

- $-\frac{21}{17}$
- $\frac{7}{5}$
- $\frac{21}{17}$
- $-\frac{7}{5}$

Save & Next

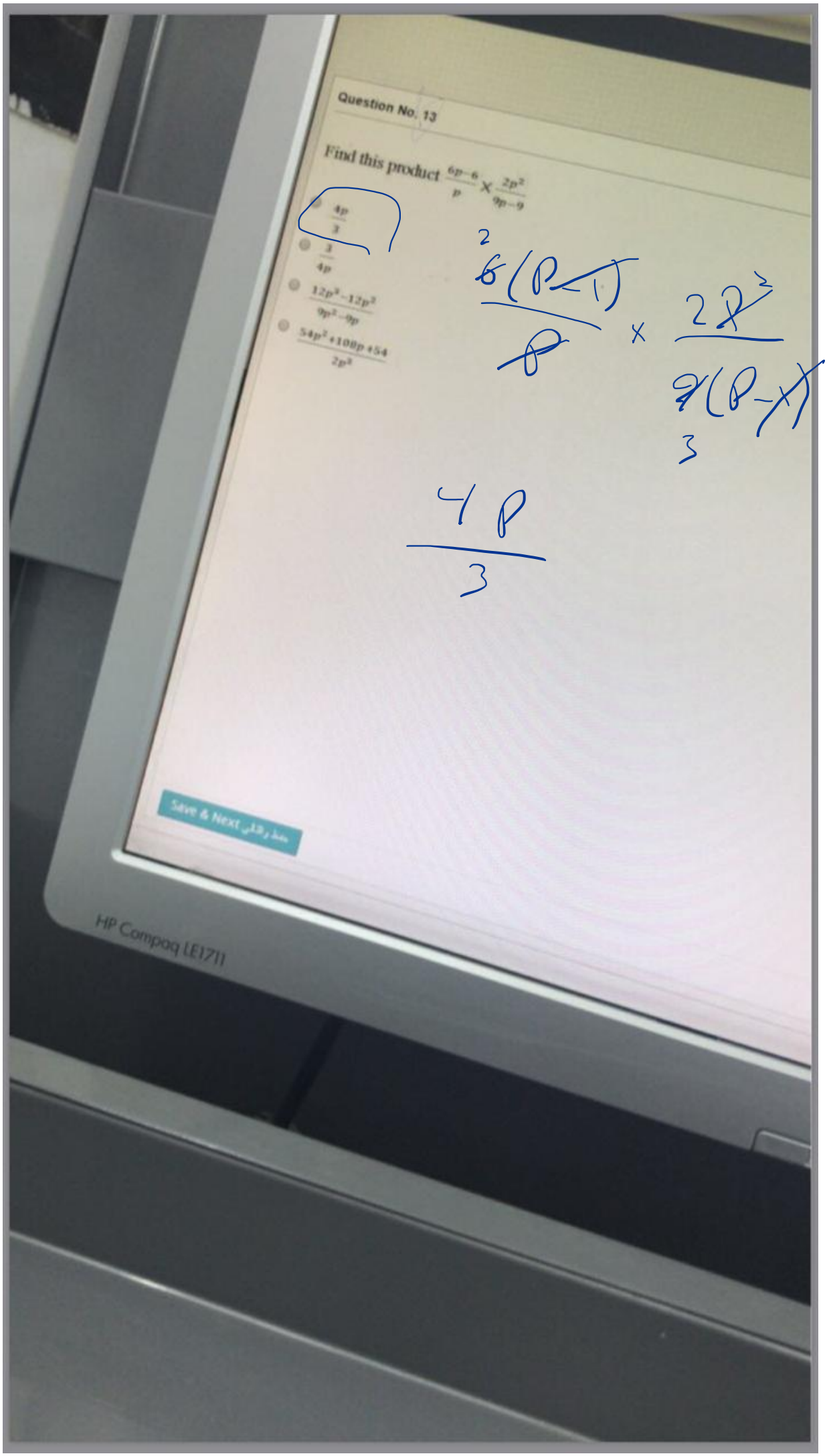


الحل الصحيح:

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

بالتعويض عن x بواحد

يطلع ز-


Question No. 13
Find this product $\frac{6p-6}{p} \times \frac{2p^2}{9p-9}$
$\frac{4p}{3}$
$\frac{3}{4p}$
$\frac{12p^3-12p^2}{9p^2-9p}$
$\frac{54p^2+108p+54}{2p^2}$
Save & Next
HP Compaq LE1711

Simplify: $\dfrac{\frac{2}{x-y}+\frac{1}{x+y}}{\frac{1}{x-y}}$

- $\dfrac{3x+y}{x^2-y^2}$
- $\dfrac{3x-y}{x+y}$
- $\dfrac{3x+y}{x+y}$
- $\dfrac{3x+y}{x-y}$

$$\frac{2x+2y+x-y}{(x-y)(x+y)} \times (x-y)$$

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

$$\frac{3x+y}{x+y}$$

MKCL OES

Online Evaluation System

Total questions in exam: **25** | Answered: **0**

Question No. 1

Simplify $\dfrac{x^2 \times y^{-\frac{5}{2}}}{\left(x^{\frac{1}{2}} \times y^{-1}\right)^2}$

- $y \cdot x^{-\frac{1}{3}}$
- $x^{\frac{1}{2}} y^{\frac{1}{6}}$
- $x^{\frac{1}{2}} \cdot y^{-\frac{5}{2}}$
- $x \cdot y^{\frac{1}{2}}$

الخيارات ضفأ

والحل ممكن يكون

$$\frac{x \cdot y^{\frac{1}{2}}}{y}$$

Save & Next حفظ والتالي

MKCL OES

Total questions in exam: 25 | Answered: 8

Question No. 8

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

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

Total questions in exam: 25 | Answered

Question No. 14

The solution set of the equation $\frac{1}{20}(2x+5)=\frac{x+2}{5}$ is

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

الإجابة

Save & Next حفظ والتالي

Question No. 3

Solve $\frac{x-15}{5}+\frac{x+9}{9}=x+4$

- $\frac{54}{31}$
- $-\frac{216}{31}$
- $-\frac{270}{31}$
- $\frac{144}{31}$

Save & Next حفظ والتالي

HP LE1901w

Question No. 10

The union $\{1, 2, 3, 5, 6, 7\} \cup \{4, 5, 6, 10\}$ is

- $\emptyset$
- $\{1, 2, 3, 4, 6, 7, 10\}$
- $\{5, 6\}$
- $\{1, 2, 3, 4, 5, 6, 7, 10\}$

MKCL OES

Total questions in exam: 25 | Answered: 7

Math_Q

Question No. 12

Evaluate for $x = -2, y = 5$, and $z = -3$ the expression: $\frac{\frac{x}{2} - \frac{y}{5}}{\frac{32}{9} + \frac{6y}{5}}$

- $\frac{-2}{6}$
- $\frac{7}{2}$
- $\frac{-2}{7}$
- $-\frac{6}{2}$

تصويب بالحاسبة

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MKCL OES

Total questions in exam: 25 | Answered: 9

Question No. 18

Simplify and express your answer using positive exponents only.

$\left(\frac{m^{-7}m^{2}}{m^{8}m^{-5}}\right)^{3}$

- m^{24}
- $\frac{1}{m^{11}}$
- m^{11}
- $\frac{1}{m^{24}}$

$= \left(\frac{m^{-7}m^{2}}{m^{8}m^{-5}}\right)^{3}$

$= \left(\frac{m^{-5}}{m^{3}}\right) = \left(\frac{1}{m^{5}m^{3}}\right)^{3}$

$= \left(\frac{1}{m^{8}}\right)^{3} = \frac{1}{m^{24}}$

Save & Next حفظ والتالي

MKCL OES
Online Evaluation System

Total questions in exam: **25** | Answered: **16**

Question No. 19

The roots of $x^2 = -3x - 6$ are

- $\frac{3 \pm i\sqrt{15}}{2}$
- $\frac{-3 \pm i\sqrt{15}}{2}$
- $\frac{-3 \pm \sqrt{33}}{2}$
- $\frac{-3 \pm \sqrt{15}}{2}$

B

MKCL OES
Online Evaluation System

Total questions in exam: **25** | Answered: **14**

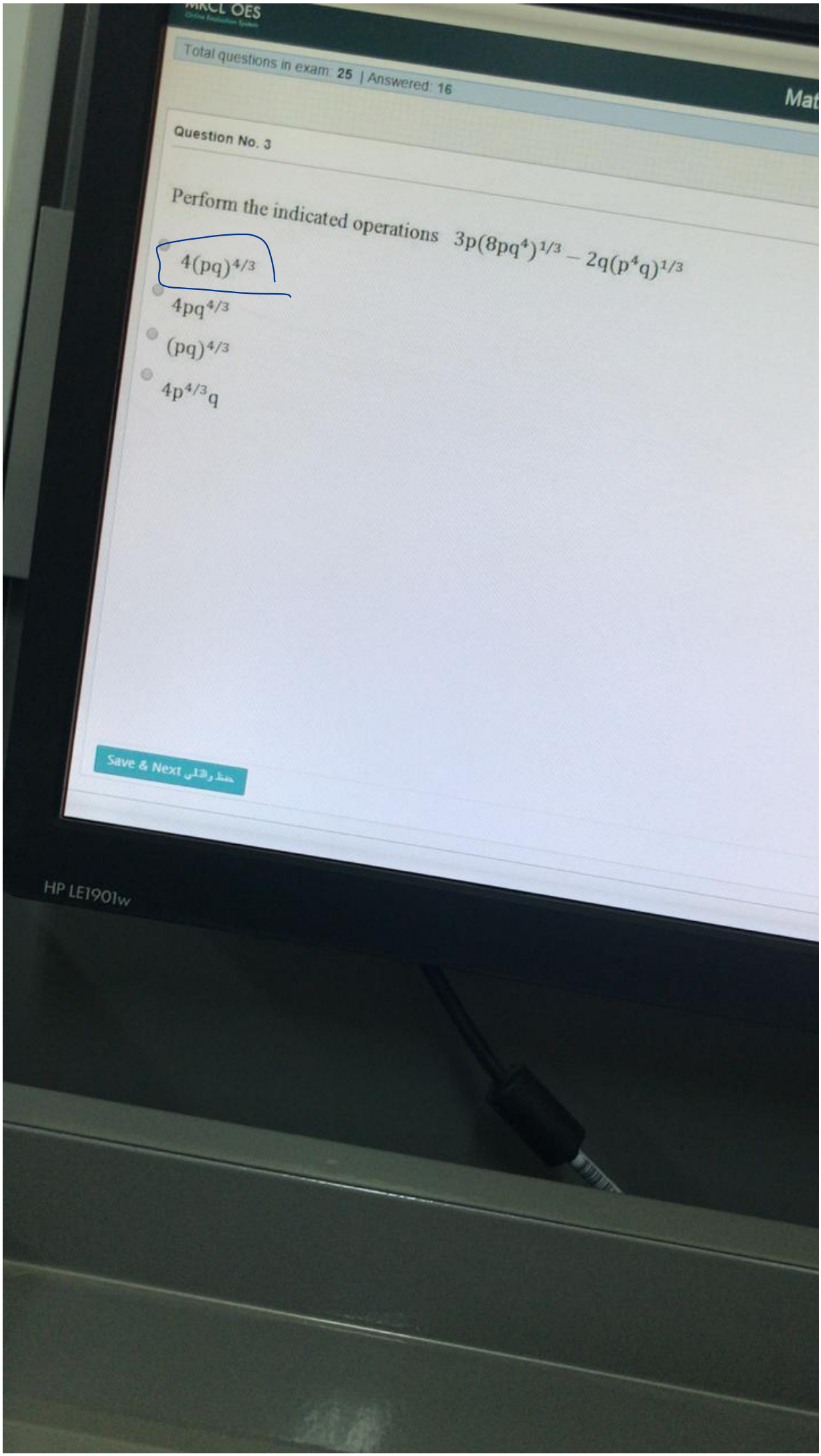
Question No. 17

Find the sum $x + \frac{1}{x} - \frac{3}{x^2}$

- $\frac{x^3+x-3}{3x^2}$
- $\frac{x^3-x+3}{x^2}$
- $\frac{x^3+x-3}{x^2}$
- $\frac{x^3+x-3}{x}$

$\frac{x^2+1}{x} - \frac{3}{x^2}$

$\frac{x^3+x-3}{x^2}$


MKCL OES
Total questions in exam: 25 | Answered: 16
Question No. 3
Perform the indicated operations $3p(8pq^4)^{1/3} - 2q(p^4q)^{1/3}$
$4(pq)^{4/3}$
$4pq^{4/3}$
$(pq)^{4/3}$
$4p^{4/3}q$
Save & Next
HP LE1901w

Total questions in exam: 25 | Answered: 17

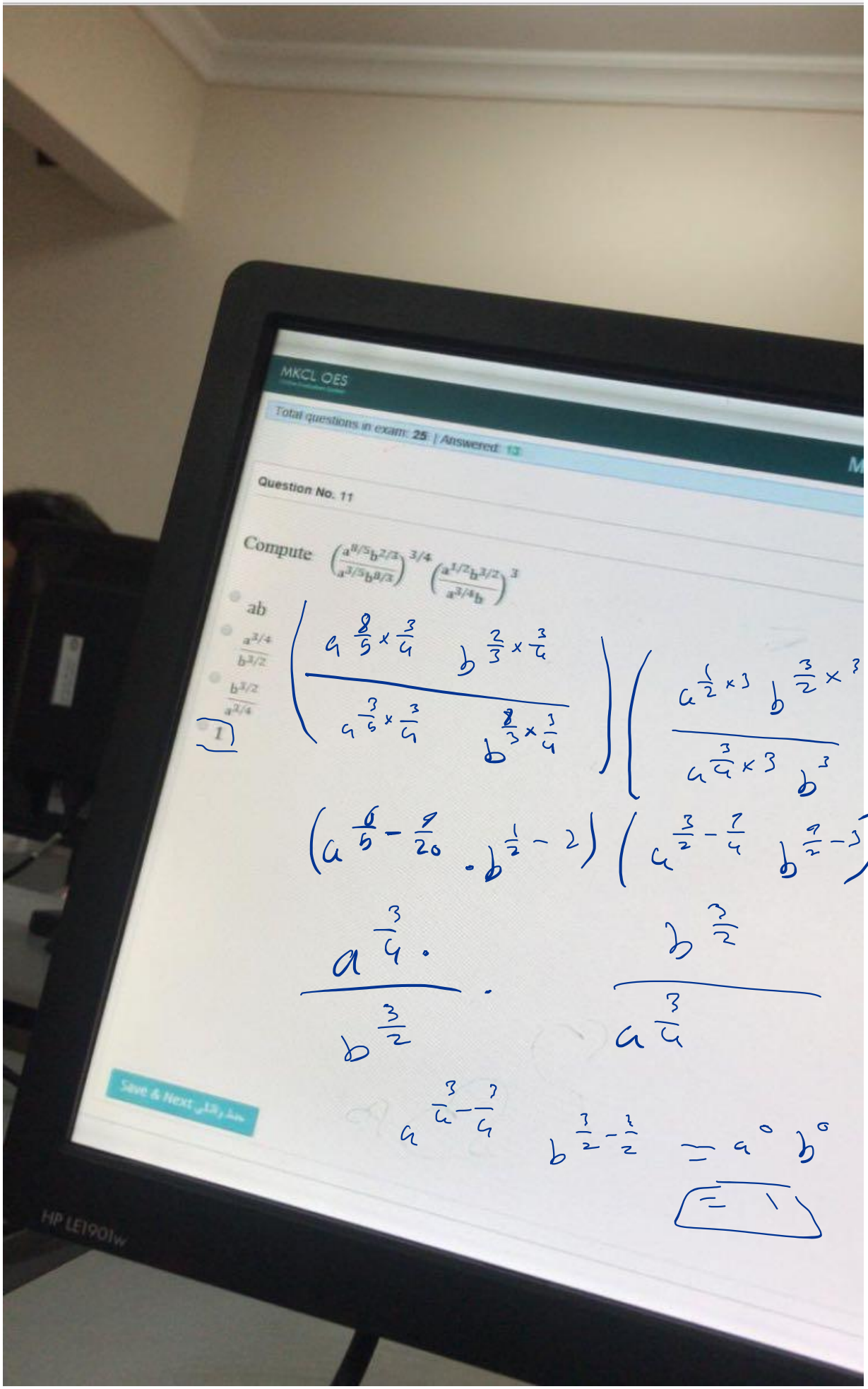
Question No. 11

Simplify $\frac{x^2 \times y^{-\frac{5}{3}}}{\left(x^{\frac{1}{2}} \times y^{-1}\right)^2}$

- $x \cdot y^{\frac{1}{3}}$
- $y \cdot x^{-\frac{1}{3}}$
- $x^{\frac{1}{2}} y^{\frac{1}{6}}$
- $x^{\frac{1}{3}} \cdot y^{-\frac{5}{3}}$

Save & Next حفظ و التالي

HP LE1901w



Question No. 17

Simplify $\left(\frac{-4n^6m^4}{m^2}\right)^{-3/2}$

- is not a real number
- $-\frac{1}{8n^9m^3}$
- $\frac{1}{8n^9m^3}$
- $-8n^9m^3$

Question No. 6

The base of $-5p^4$ is

- 4
- 5
- p
- -5p

Next التالي

Total questions in exam: 25 | Answered: 3

Question No. 11

Factor : $4x^2-y^2-6y-9$

- (2x – y + 3)(2x + y – 3)
- (4x – y – 3)(4x + y + 3)
- (2x – y – 3)(2x + y + 3)
- (4x – y + 3)(4x + y – 3)

$4x^2-(y^2+6y+9)$

$4x^2-(y+3)(y+3)$

$4x^2-(y+3)^2$

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

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

Question No. 22

$(7+6x^3+8x^5-4x^4)+(-5x^4+2x^3-2+7x^5)$

- $2x^5+2x^4+6x^3+3$
- $15x^5-9x^4+8x^3+5$
- $15x^{10}-9x^8+8x^6+5$
- $14x^{24}+5$

Question No. 23

Write this expression as the product of a real number and i

$$\frac{3}{4}\sqrt{-80}$$

- $12i\sqrt{5}$
- $6i\sqrt{5}$
- $3i\sqrt{5}$
- $-6\sqrt{5}$

Question No. 24

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

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

$$\frac{\frac{1}{x}+\frac{1}{y}}{1-\frac{1}{x}} = \frac{\frac{y+x}{xy}}{\frac{x-1}{x}}$$

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

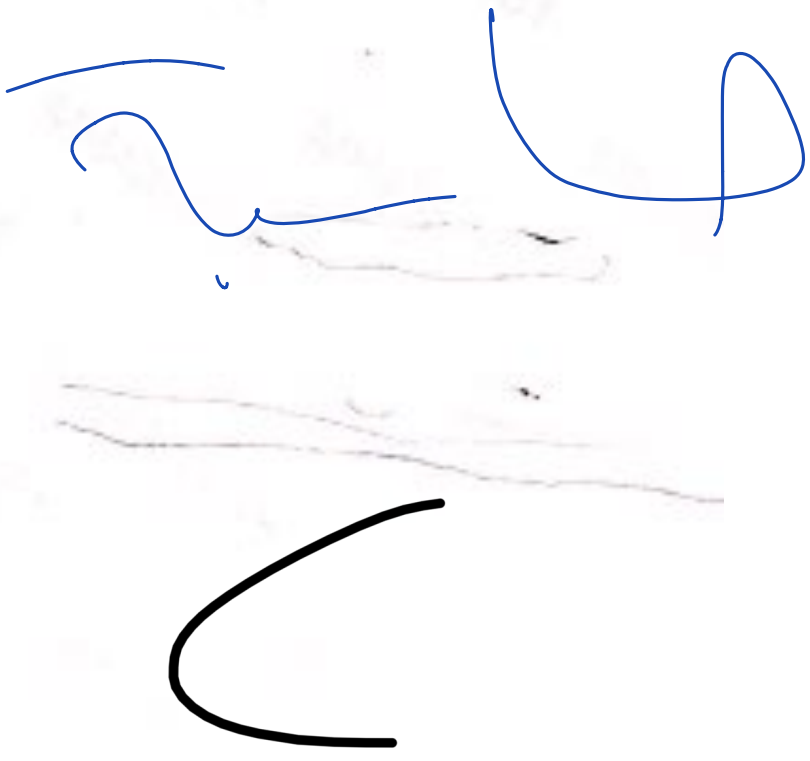
B

Save & Next حفظ والتالي

Question No. 20

Solve $75 - \frac{x}{7} = \frac{x}{8}$

- $\frac{1125}{2}$
- $\frac{1125}{56}$
- 280
- 5



Question No. 18

Factor $-12x^2+27$

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

* اخذ (-3) عامل مشترك

$-3(4x^2-9)$ ← فرق بين مربعين

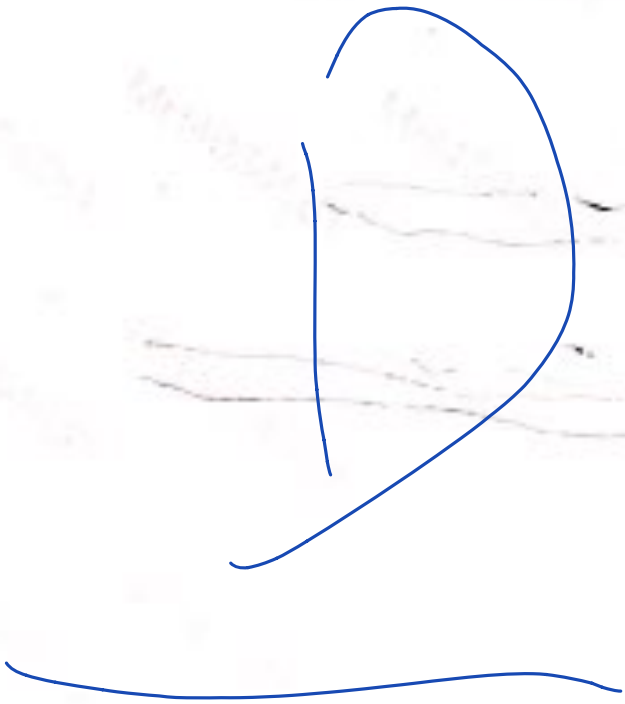
$-3[(2x-3)(2x+3)]$

Save & Next حفظ والتالي

Question No. 19

The expression $\frac{8}{5x} + \frac{3}{4x} - \frac{7}{2x}$ is equal to

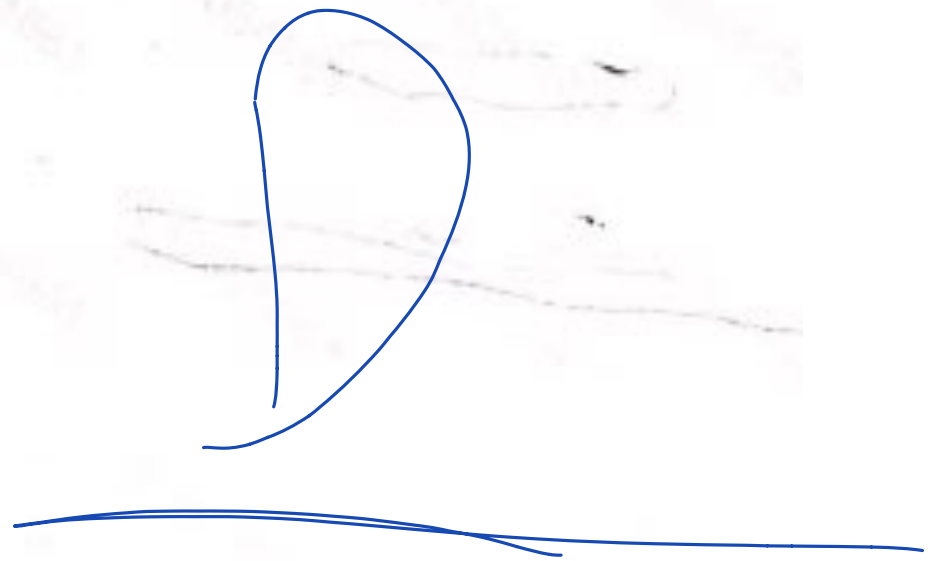
- $\frac{1}{12x}$
- $-\frac{1}{6x}$
- $\frac{1}{6x}$
- $-\frac{1}{12x}$



Question No. 16

Factoring $x^3 - y^3$

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



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Total questions in exam: 25 | Answered: 0

Question No. 17

Simplify the expression. $\dfrac{\dfrac{x^2-3x+2}{x-4}}{x-2}$

- $\dfrac{x-1}{x-4}$
- $\dfrac{x-4}{x-1}$
- $\dfrac{x-2}{x-4}$
- $\dfrac{x+1}{x-4}$

بالتعويض عن $x = 7$

Save & Next

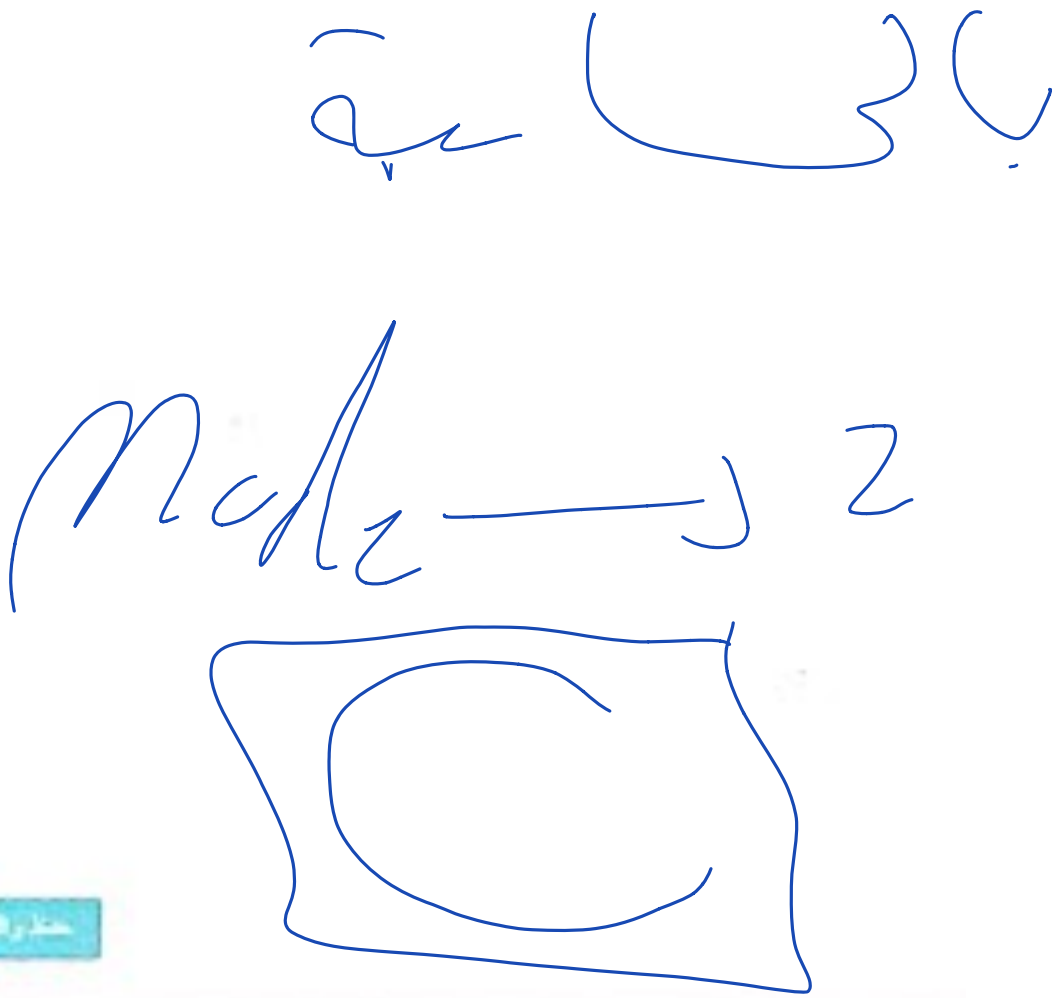
Total questions in exam: 25 | Answered: 0

Question No. 23

Perform the indicated operation.

$$(7-3i) \div (5-2i)$$

- $\frac{41}{29} - i$
- $\frac{7}{5} + \frac{3}{2}i$
- $\frac{41}{29} - \frac{1}{29}i$
- $1 - \frac{1}{29}i$



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Question No. 16

Factor the following polynomial : $4tx^3 + ytz - 4zt - tyx^3$

- $(tx^3 + z)(4t + yt)$
- $t(x^3 - z)(4 - y)$
- $(x^3 - z)(4 - y)$
- $t(x^3 - z)(4 + y)$

$(4tx^3 - tyx^3) + (-4zt + ytz)$

$tx^3(4 - y) - zt(4 - y)$

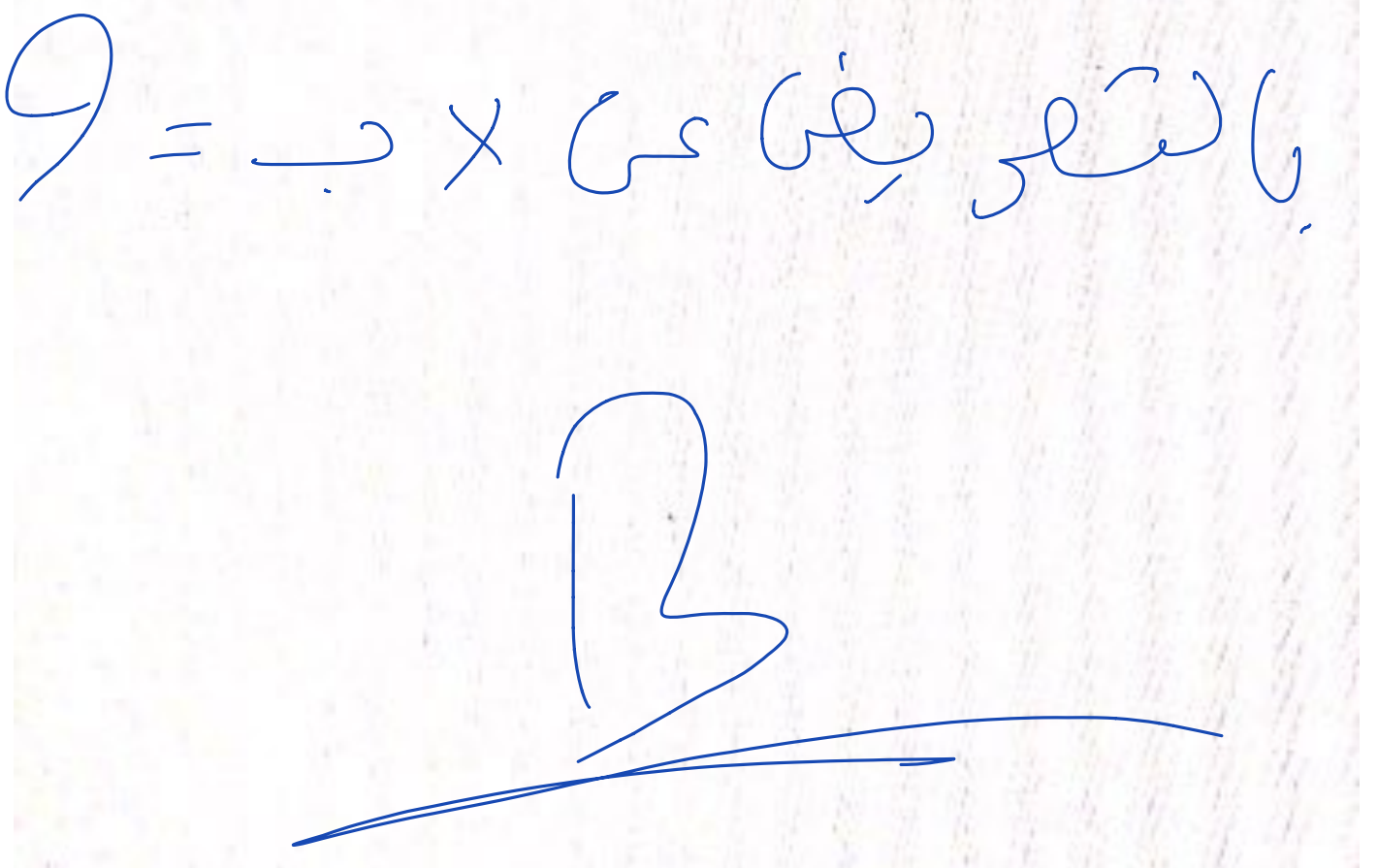
$(4 - y)(tx^3 - zt)$

$(4 - y)\,t(x^3 - z)$

Save & Next

Simplify the complex fraction $\dfrac{\dfrac{1}{x+3}-\dfrac{2}{x-1}}{\dfrac{x}{x-1}+\dfrac{3}{x+3}}$

- $\dfrac{-x+7}{x^2+6x-3}$
- $\dfrac{-x-7}{x^2+6x-3}$
- $\dfrac{x-7}{x^2+6x-3}$
- $\dfrac{x+7}{x^2+6x-3}$



Simplify the expression, assuming that the variable can represe

$$-\left(\frac{8a^3}{27}\right)^{-\frac{4}{3}}$$

-2.10×10^{-3}

- $\frac{81}{16a^4}$
- $-\frac{16a^4}{81}$
- $\frac{16a^4}{81}$
- $-\frac{81}{16a^4}$

الإجابة هي ب = ؟

Total questions in exam: 25 | Answered: 0

Question No. 22

Perform the indicated operation $\dfrac{(2a^{-1}b^2c^{-2})^2}{(3^{-1}b)(2^{-1}ac^{-2})^3}$

- $\dfrac{24bc^2}{a^5}$
- $\dfrac{96bc^2}{a^5}$
- $\dfrac{24b^3c^2}{a^5}$
- $\dfrac{96b^3c^2}{a^5}$

$$\frac{4a^{-2}b^4c^{-4}}{(3^{-1}b)(2^{-3}a^3c^{-6})}$$

$$4(3)(8)\,a^{-2-3}\,b^{4-1}\,c^{-4--6}$$

$$= \frac{96b^3c^2}{a^5}$$

Save & Next

Question No. 19

Writing $\frac{-8+\sqrt{-128}}{8}$ in standard form of complex numbers gives

- $-1+i\sqrt{2}$
- $-1-\sqrt{2}$
- $-1+\sqrt{2}$
- $-1-i\sqrt{2}$

Save & Next حفظ و التالي

Question No. 17

Find the sum $\frac{3}{2y} + \frac{5}{4y}$

- $\frac{11}{y}$
- $\frac{11}{4y^2}$
- $\frac{22}{4y}$
- $\frac{11}{4y}$

$$\frac{6}{4y} + \frac{5}{4y} = \frac{11}{4y}$$

D

Save & Next

Question No. 18

Factor out the least power of the variable $18n^{4/3} - 12n^{1/3}$

- $6n^{\frac{1}{3}}(3n - 2)$
- $6n^{\frac{1}{3}}(3n^2 - 2n)$
- $6n^{\frac{1}{3}}(3n^2 - 2)$
- $6n^{\frac{4}{3}}(3 - 2n)$

$6n^{\frac{1}{3}}(3n - 2)$

Save & Next حفظ والتالي

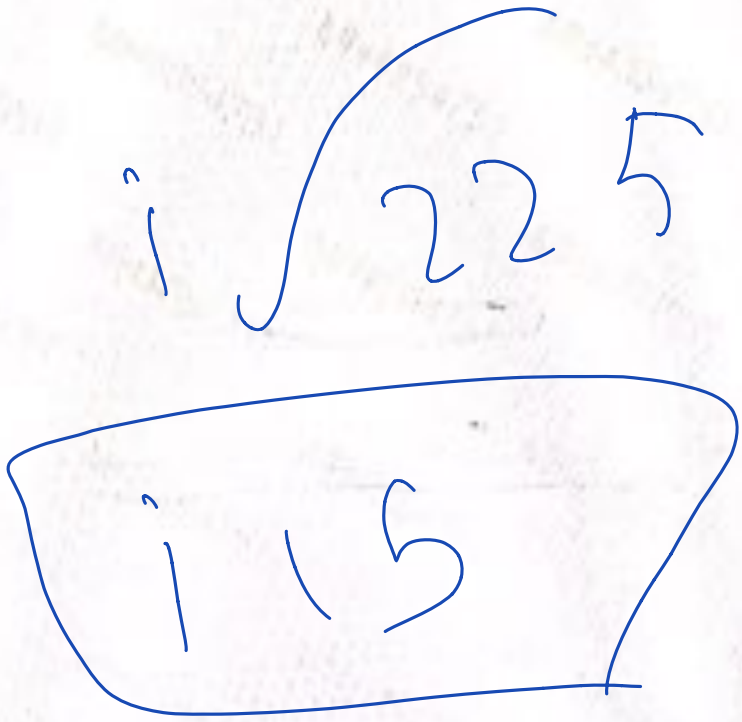
Total questions in exam: 25 | Answered: 2

Question No. 13

Write this number as the product of a real number and i

$$\sqrt{-225}$$

- $-i\sqrt{15}$
- 15
- $15i$
- $-15i$



C

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Total questions in exam: 25 | Answered: 1

Question No. 5

When factored completely $25x^2y^3 + 10xy^2$ becomes

- $5xy^2(5xy + 2)$
- $5y^2(5x^2y + 2x)$
- $5xy^2(5xy + 2xy^2)$
- $5(5x^2y^3 + 2xy^2)$

$5xy^2(5xy + 2)$

A

Save & Next

Question No. 2

The quotient $\frac{5-i}{3+2i}$ can be written as

- $1-i$
- $-1-i$
- $-1+i$
- $1+i$

$1 - i$

$\overline{z} = 5$

$\text{mod } z \rightarrow 2$

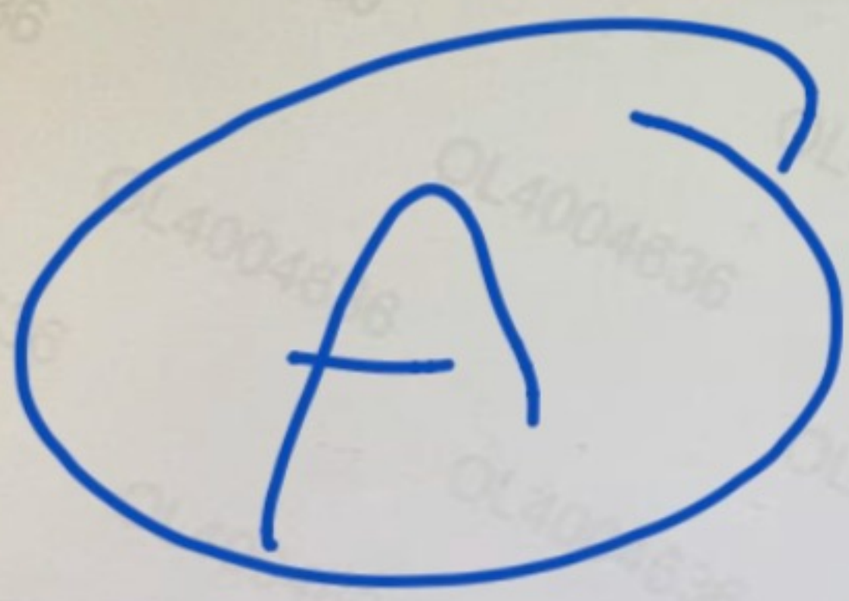
A

Save & Next حفظ والتالي

Question No. 24

Let $x \in \mathbb{Z}$. Simplify the following expression $a = 3i^{132x^2+4x-3}$

- $a = 3i$
- $a = -3i$
- $a = -3$
- $a = 3$



اكتبوا اس i بالحسابه لحاله وافرضوا قيمه لـ X خلوها
3 راح يطلع لكم الناتج 1197 اقسموه على 4
بيطلع العدد كذا 299.25 معناتها i اضربها ب
3 بيطلع الناتج A

0.25 → i 0 → 1
0.75 → -1 0.5 → -1

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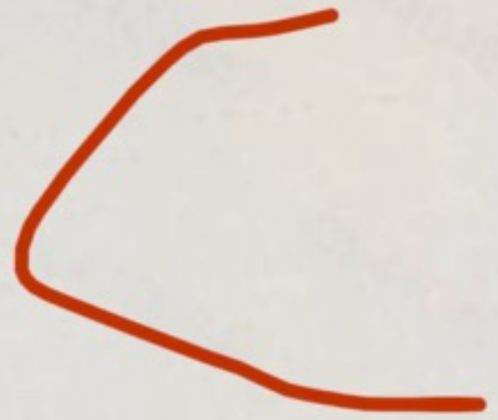
Total questions in exam: **25** | Answered: 3

Question No. 12

Perform this operation and express the answer in the simplest form.

$$\frac{3m+1}{m-4} - \frac{m+9}{m-4}$$

- $\frac{2m+10}{m-4}$
- $\frac{4m+10}{m-4}$
- 2
- $\frac{4m-8}{m-4}$



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MKCL OES

Math_Quiz1_Sem1_2019

Total questions in exam: **25** | Answered: 3

Question No. 16

Evaluate $-\sqrt{-121}$

- -11
- 11i
- 11
- -11i

-11i

D

Save & Next

MKCL OES

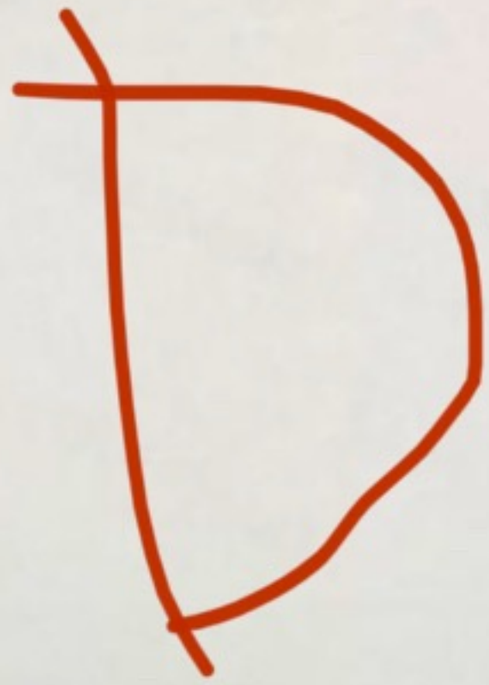
Math_Quiz1_Sem1_2019

Total questions in exam: **25** | Answered: **3**

Question No. 20

Factor $x^2 - 8x - 20$

- (x – 2)(x + 10)
- (x + 1)(x – 20)
- (x + 2)(x + 10)
- (x + 2)(x – 10)



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MKCL OES
Online Evaluation System

Math_Quiz1_Sem1_2019

Total questions in exam: **25** | Answered: 3

Question No. 21

Write this expression as the product of a real number and i

$$3\sqrt{-75}$$

- $75i\sqrt{3}$
- $15i\sqrt{3}$
- $3i\sqrt{5}$
- $-15i\sqrt{3}$

B

Save & Next

MKCL OES

Math_Quiz1_Sem1_20

Total questions in exam: 25 | Answered: 3

A⁻ A

Question No. 4

Factor $20x^4 - 6x^3 + 14x^2$

- $2x^2(10x^2 - 6x + 14)$
- $2x^2(10x^2 - 3x + 7)$
- $20x(x^3 - 6x^2 + 14x)$
- $20x^2(x^2 - 3x + 7)$

B

Save & Next

10.65.7.215

HP LE1851w

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MKCL OES

Math_Quiz1_Sem1_2019

Total questions in exam: 25 | Answered: 3

Question No. 4

Which expression is a polynomial?

- $\sqrt{11}$
- $x^{-2}-1$
- $\sqrt{x}+x$
- $\frac{1}{x}+x$

Save & Next

Question No. 2

Write the expression in simplified radical form $\frac{6}{\sqrt{38}-6}$

- $3\sqrt{38}-18$
- $3\sqrt{38}$
- $\frac{3\sqrt{38}}{16}$
- $3\sqrt{38}+18$

Save & Next

MKCL OES

Math_Quiz1_Sem1_2019

Total questions in exam: 25 | Answered: 5

Question No. 4

A⁻ A A⁺

The product $z(1+i)$ is a real number if

- z is the complex conjugate of 1+i.
- $z \in \mathbb{R}$.
- $z = i$.
- z is a pure imaginary number.

A

Save & Next

User AA

5 Answ

18 Not V

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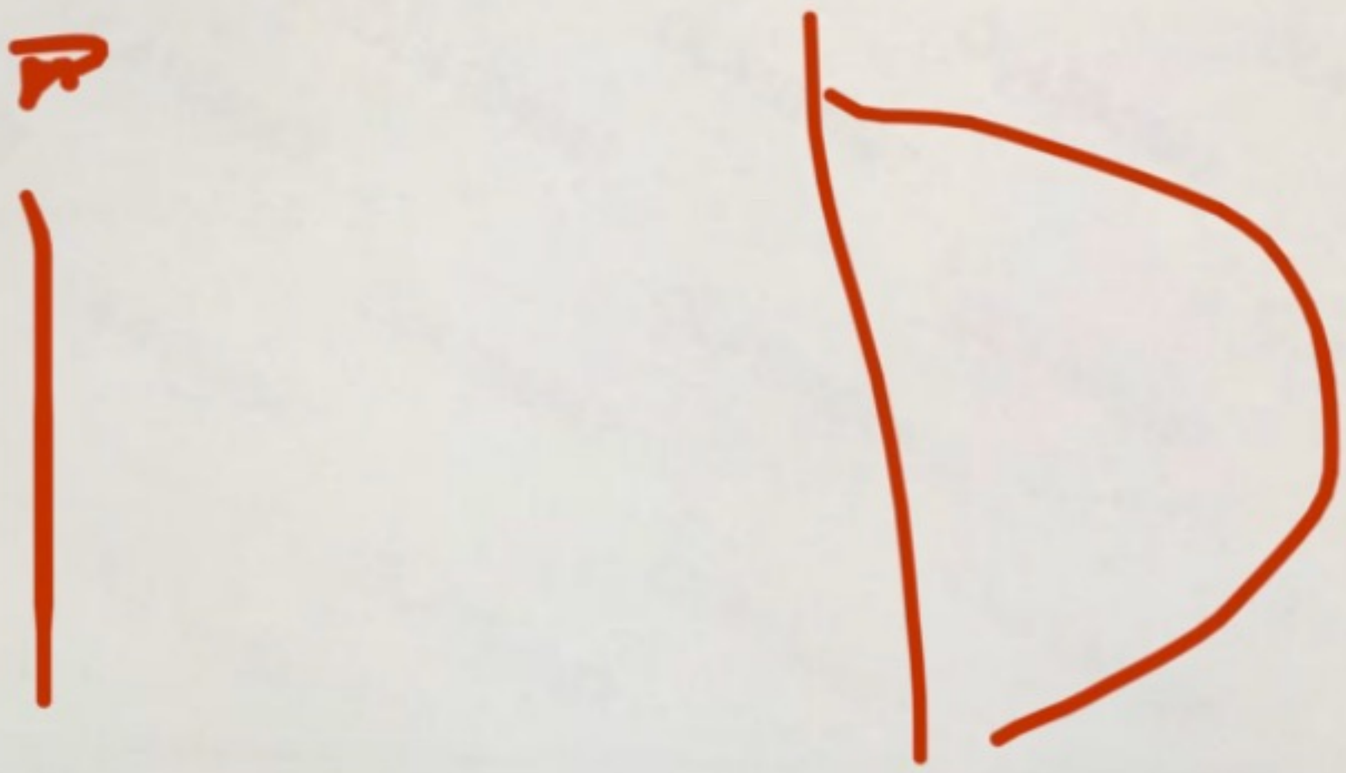
Total questions in exam: 25 | Answered: 3

Question No. 5

A+

Simplifying the power of i^9 gives

- 1
- -i
- -1
- i



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Question No. 6

Let $\left\{-3.5, -1\frac{3}{4}, 3.25, -\sqrt{3}, -0.8, \pi, \frac{9}{2}, \sqrt{36}\right\}$. List all the numbers in the set that are elements of irrational numbers.

- $\left\{-1\frac{3}{4}, -\sqrt{3}, \pi, \frac{9}{2}, \sqrt{36}\right\}$
- $\left\{-1\frac{3}{4}, -\sqrt{3}, \pi, \frac{9}{2}\right\}$
- $\left\{-\sqrt{3}, \pi\right\}$
- $\left\{-\sqrt{3}, \pi, \sqrt{36}\right\}$

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Question No. 17

Perform the indicated operation $\frac{x^{1/3}y^{-3/4}}{x^{-1/2}y^{3/2}}$

- $\frac{x^{5/6}}{y^{9/4}}$
- $\frac{y^{5/6}}{x^{9/4}}$
- $\frac{x^{3/4}}{y^{1/6}}$
- $\frac{y^{3/4}}{x^{1/6}}$

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Question No. 19

Factor the polynomial $2ax + 4bx - 3ay - 6by$ completely

- $(a + 2b)(2x - 3y)$
- $(a - 2b)(2x - 3y)$
- $(a + 2b)(2x + 3y)$
- $(a + b)(2x - 3y)$

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Question No. 23

Find $\frac{1}{4y} + \frac{3}{2y} - \frac{2}{3y}$

- $\frac{13}{12y}$
- $\frac{2}{12y}$
- $\frac{11}{12y}$
- $\frac{2}{9y}$

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Question No. 24

Determine the following union $\emptyset \cup \{1,2\} =$

- $\{1,2,\phi\}$
- $\{1\}$
- $\emptyset$
- $\{1,2\}$

D

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Question No. 25

The degree of the polynomial $(y^2-2)^3$ is

- 5
- 6
- 2
- 4

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265

uestions in exam: 25 | Answered: 1

uestion No. 2

Let $a, b \in \mathbb{R}$. Give the values of a and b that make this statement true:

$$2b + (3a - \sqrt{2})i = b - 2 + (a + \sqrt{8})i$$

- $a = -3\sqrt{2}$ and $b = -2$
- $a = 3\sqrt{2}$ and $b = 2$
- $a = 3\sqrt{2}$ and $b = -2$
- $a = -3\sqrt{2}$ and $b = -2$

$a = \frac{3\sqrt{2}}{2}$ $b = -2$

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Total questions in exam: 25 | Answered: 1

Question No. 3

A⁻ A

The set of irrational numbers from $\{-7, -\sqrt{5}, -2, -\frac{1}{6}, 0, 1, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$ is

- $\{-7, -2\}$
- $\{-\sqrt{5}, -\frac{1}{6}, 0, 2\frac{1}{3}, \sqrt{25}, \frac{17}{2}\}$
- $\{-\sqrt{5}, \sqrt{25}\}$
- $\{-\sqrt{5}\}$

D

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Question No. 14

A⁻

Factor: $9x^2 + yz - 9z - yx^2$

- $(x^2 + z)(9 - y)$
- $(x^2 - z)(9 + y)$
- $(x^2 - z)(9 - y)$
- $(x^2 + z)(9 + y)$

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Question No. 3

If A={1,2,3} and B={0,1,2,3} then:

- A = B
- B ⊆ A
- A and B are disjoints sets
- A ⊆ B

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