Maths_S

MKCL OES

Question No. 21

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

○ 6
○ 4
○ 5
○ 3

Handwritten solution:

$$2x^3 - 18x^2 + 36x + 16$$

$$x+2 \overline{\smash{)}\ 7x^4 - 4x^3 + 6x - 5}$$

$$7x^4 + 4x^3$$
$$\underline{\qquad}$$
$$-18x^3 - 6x - 5$$
$$-18x^3 - 36x^2$$
$$\underline{\qquad}$$
$$36x^2 - 6x - 5$$
$$36x^2 - 72x$$
$$\underline{\qquad}$$
$$66x - 5$$
$$66x + 132$$
$$\underline{\qquad}$$
$$-137$$

عند الـ ....

أعلى درجة في

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

أي على درجة في

$$(x+2) = 1$$

- درجة الناتج =

$$4 - 1 = 3$$

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

Question No. 6

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

○ $- \dfrac{256}{81x^4}$

○ $\dfrac{81x^4}{256}$

○ $- \dfrac{81x^4}{256}$

○ $\dfrac{256}{81x^4}$

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

$- \dfrac{(2^6)^{\frac{4}{3}}}{((3x)^3)^{\frac{4}{3}}}$

$= - \dfrac{2^{\frac{6 \times 4}{3}}}{(3x)^{\frac{3 \times 3}{4}}} = - \dfrac{2^8}{(3x)^4}$

$= - \dfrac{2^{16}}{81x^4}$

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

Question No. 6

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

- ○ $-\dfrac{256}{81x^4}$
- ○ $\dfrac{81x^4}{256}$
- ○ $-\dfrac{81x^4}{256}$
- ○ $\dfrac{256}{81x^4}$

Question No. 1

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

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

باختصار التحليل ⋆

$$= \frac{(6m - 5)(m + 3)}{m + 3}$$

$$= 6m - 5$$

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

$\text{Mode} \rightarrow 5 \rightarrow 3$: بإجابة سؤال

$(x-1)(x+6)$

$x + 6 = 0$

$\boxed{x_1 = -6}$

$x - 1 = 0$

$\boxed{x_2 = 1}$

صح ٢ ؟ شي :

بالتعويض في

الخيارات

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

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

Question No. 3

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

○ $A \cap B = \{7\}$

○ $B \subseteq A$

○ A and B are disjointsets

○ $A \cup B = \{2,5\}$

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

- ○ {2}
- ○ {2, -2}
- ○ 2
- ○ ∅

$$6x - 12 = 2 - x$$

$$6x + x = 2 + 12$$

$$7x = 14$$

$$\boxed{x = 2}$$

Question No. 13

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

- $\dfrac{x^2-x+1}{x-1}$
- $\dfrac{x^2+x+1}{x+1}$
- $\boxed{\dfrac{x^2+x+1}{x-1}}$
- $\dfrac{x+1}{x^2-x+1}$

$$\frac{\cancel{x+1}}{x-1} \times \frac{(\cancel{x-1})(x^2+x+1)}{(\cancel{x-1})(\cancel{x+1})}$$

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

* نوٹس :

* $x^3-1 = x^3 - 1^3$

* $x^2-1 = x^2 - 1^2$

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

Question No. 13

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

○ $\dfrac{x^2-x+1}{x-1}$

○ $\dfrac{x^2+x+1}{x+1}$

○ $\dfrac{x^2+x+1}{x-1}$

○ $\dfrac{x+1}{x^2-x+1}$

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

Question No. 14

Use the quadratic formula to solve this equation:

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

○ $x = -2 \pm \sqrt{7}$

○ $x = -2 \pm 2\sqrt{7}$

○ $x = -1 \pm \sqrt{7}$

○ $x = 2 \pm \sqrt{7}$

نقل $4x$ للطرف الثاني (-)

$$3 - x^2 - 4x = 0$$

٭ نرتب الحدود

$$-x^2 - 4x + 3 = 0$$

بالضبط نستعمل 3 → mode

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

Question No. 14

Use the quadratic formula to solve this equation:

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

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

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

Question No. 14

Use the quadratic formula to solve this equation:

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

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

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

Question No. 15

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

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

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

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

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

Question No. 3

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

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

Use the Venn diagram to determine $A \cap B'$.
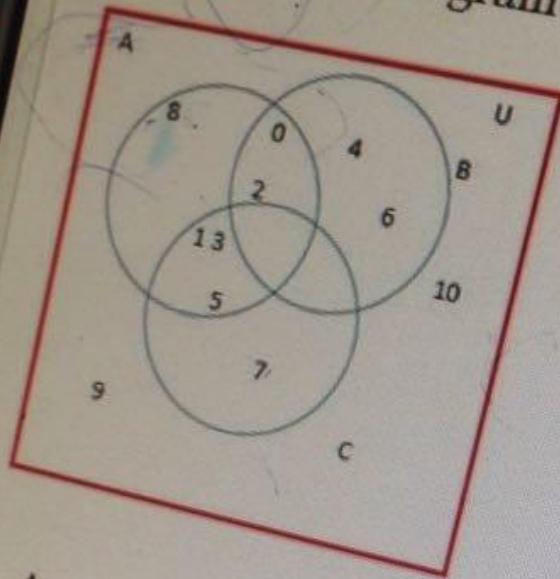
$A \cap B' = \{0, 2\}$

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

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

$A \cap B' = \{\}$

$A = \{0, 1, 2, 3, 5, 8\}$

$B' = \{1, 3, 5, 7, 8, 9, 10\}$

Question No. 14

Use the quadratic formula to solve this equation:

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

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

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

Question No. 6

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

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

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

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

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

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}

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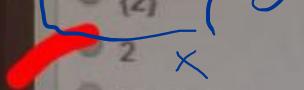
Total questions in exam: **25** | Answered: **3**

Question No. 4

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

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

$(-5 \times -8) \, p^{4+3}$
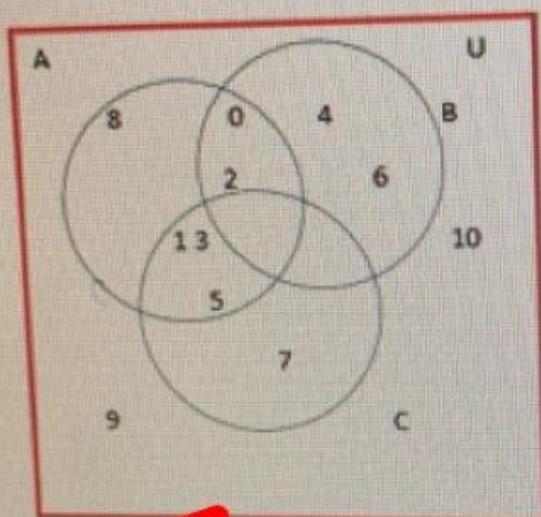
$40 \, p^7$

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. 7

Use the Venn diagram to determine U
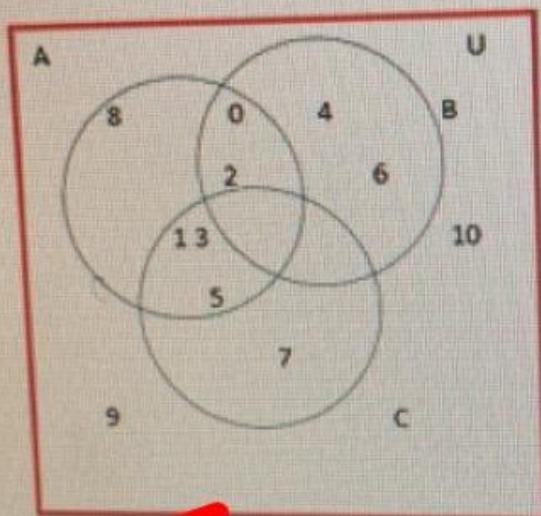
U = {9, 10}

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

U = { }

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

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

Question No. 1

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

- ○ 2
- ○ 2i
- ○ -2
- ○ -2i

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

Question No. 2

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

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

Mode $c \longrightarrow b \longrightarrow 3$

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

Question No. 3

Perform the indicated operation.

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

○ $\dfrac{4}{3} - \dfrac{2}{3}i$

○ $\dfrac{4}{3} + \dfrac{2}{3}i$

○ $-\dfrac{4}{3} + \dfrac{2}{3}i$

○ $-\dfrac{4}{3} - \dfrac{2}{3}i$

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

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. 4

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

- ⊘ $\dfrac{1}{x^{5/14} y^{1/3}}$
- ○ $\dfrac{1}{x^{3/14} y^{1/3}}$
- ○ $\dfrac{1}{x^{3/14} y^{11/21}}$
- ○ $x^{5/14} y^{1/3}$

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

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

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

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

Question No. 18

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

Question No. 10

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

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

$$x^2 = -225$$

$$x = \sqrt{-225}$$

$$x = \pm 15 i$$

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

Question No. 5

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

- Ø
- 1
- All real numbers
- {2,3}

$$2x + 6 = 2x - 6$$
$$-2x \qquad -2x$$

$$6 \neq -6$$

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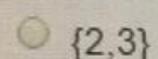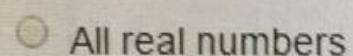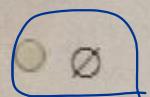
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كل الوسائط

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

○ $\frac{a}{a+b}$

○ $\frac{-a+b}{a}$

○ $\frac{-a}{a+b}$

○ $\frac{a+b}{a}$

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

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

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

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

Question No. 11

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

○ $3(5x - 3) = 15x + 19$

○ $x^2 - 1 = 0$

○ $\dfrac{5}{3}x - \dfrac{4}{3} = 11$

○ $-2(x + 6) + 3x = x - 12$

$$\frac{5x - 4}{3} = 11$$

$$5x - 4 = 33$$

$$5x = 37$$

$$x = \frac{37}{5}$$

Question No. 11

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

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

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

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- $-2(x + 6) + 3x = x - 12$

Question No. 20

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

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

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

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

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

$$
\begin{array}{r}
x^2y^2 + 1 \\
xy-3 \overline{\smash{\big)}\, x^3y^3 - 3x^2y^2 + xy - 1} \\
x^3y^3 - 3x^2y^2 \\
\hline
xy - 1 \\
xy - 3 \\
\hline
2
\end{array}
$$

Question No. 20

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

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

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

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

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

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

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

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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

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

○ $\{-\sqrt{5}, \sqrt{25}\}$

○ $\{-7, -2\}$

○ $\{-\sqrt{5}\}$

Question No. 16

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

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

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Question No. 16

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

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

بالتوفيق

Question No. 16

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

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

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Question No. 16

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

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

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Question No. 16

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

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

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Total questions in exam: 25 | Answered: 12

Question No. 20

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

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

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

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

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

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

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

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MKCL OES

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

Question No. 20

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

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

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

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

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

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

Question No. 11

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

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

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

Question No. 1

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

○ $\dfrac{1}{3x}$

○ $3x$

○ $-\dfrac{1}{3x}$

○ $\boxed{-3x}$

١ ، مثال اخــــأ له الصيغة

كـذا:

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

بالتعويض عن x بواحد

يطلع ز ــ

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

○ $\frac{a}{a+b}$

○ $\frac{-a+b}{a}$

○ $\frac{-a}{a+b}$

○ $\frac{a+b}{a}$

Question No. 1

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

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

$$6x - 8a + 4b = 5x + 4b - 4a$$

$$6x - 5x = 4b - 4a + 8a - 4b$$

$$x = 4a$$

Find this product $\frac{6p-6}{p} \times \frac{2p^2}{9p-9}$

- $\frac{4p}{3}$
- $\frac{3}{4p}$
- $\frac{12p^2-12p^2}{9p^2-9p}$
- $\frac{54p^2+108p+54}{2p^2}$

$\frac{6(p-1)^2}{p} \times \frac{2p^3}{9(p-1)}{3}$

$\frac{4p}{3}$

Question No. 3

Perform the indicated operation.

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

○ $\dfrac{4}{3} - \dfrac{2}{3}i$

○ $\dfrac{4}{3} + \dfrac{2}{3}i$

○ $-\dfrac{4}{3} + \dfrac{2}{3}i$

○ $-\dfrac{4}{3} - \dfrac{2}{3}i$

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

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

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

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

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

Which one of the following equations is an identity?

$-2(x + 6) + 3x = x - 12$

$\dfrac{5}{3}x - \dfrac{4}{3} = 11$

$x^2 - 1 = 0$

$3(5x - 3) = 15x + 19$

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

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HP Compaq LE1711

Question No. 8

Using set notation, the elements belonging to the set:

{x| x is a natural number less than 2} are

- ○ {1}
- ○ {0}
- ○ ∅
- ○ {∅}

Save & Next

Question No. 3

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

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

[handwritten annotations:]

$x + 3 \Rightarrow \boxed{x = -3}$

$2x - 3 \Rightarrow 2x = 3$

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

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Question No. 3

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

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

Save & Next حفظ والتالي

Question No. 3

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

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

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Question No. 1

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

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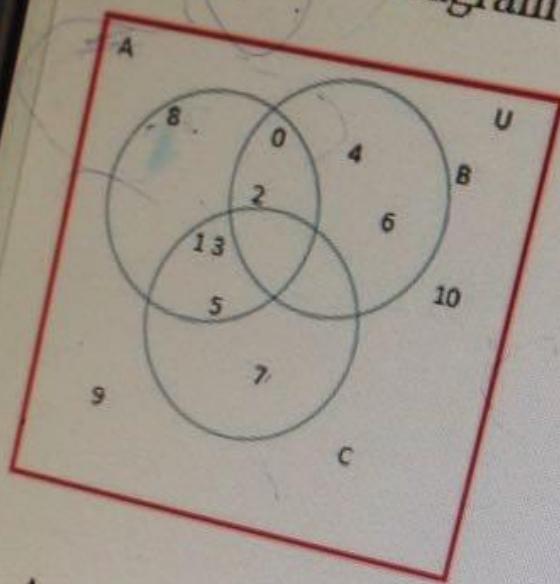
$$\frac{x \cdot y^{\frac{1}{2}}}{y}$$

الخيارات مْضاً
والا نمكى نكون

Save & Next حفظ و التالي

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. 7

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

- $r = \dfrac{P-A}{Pn}$

- $r = \dfrac{Pn}{A-P}$

- $\boxed{r = \dfrac{A-P}{Pn}}$

- $r = \dfrac{A}{n}$

$A = P + Pnr$

$A - P = Pn\, r$

$r = \dfrac{A - P}{Pn}$

Question No. 23

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

- 3
- 6
- 2xy
- 2

exponent = الأس/القوى
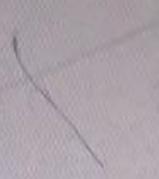
Total questions in exam: **25** | Answered: **8**

Question No. 8

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

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

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

Question No. 8

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

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

MKCL OES

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

Question No. 1

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

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

$$\frac{(6m - 5)(m + 3)}{m + 3}$$

Save & Next معرض خلفي

10:31 AM

Question No. 14

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

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

الاجابة

Question No. 12

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

○ $1 \notin A$

○ $\{1,4\} \subseteq A$

○ $\{1\} \in A$

○ $\{0,1\} \subseteq A$

$\Longrightarrow \in$ تكون بين
عنصر ومجموعة

$\Longrightarrow \subseteq$ تكون بين
مجموعتين

Question No. 10

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

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

Question No. 1

Factor completely: $y^4 - 13y^2 + 36$

- $(y-2)(y-3)(y+3)(y+2)$
- $(y^2-4)(y^2-9)$
- $(y^2+4)(y^2+9)$
- $(y^2-6)^2$

$$= a^2 - 13a + 36$$

$$= (a-9)(a-4)$$

$$= (y^2-9)(y^2-4)$$

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

Save & Next حفظ والتالي

Question No. 1

Factor completely: $y^4 - 13y^2 + 36$

- $(y-2)(y-3)(y+3)(y+2)$
- $(y^2 - 4)(y^2 - 9)$
- $(y^2 + 4)(y^2 + 9)$
- $(y^2 - 6)^2$

Save & Next حفظ والتالي

Question No. 3

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

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

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Total questions in exam: **25** | Answered: **19**

Question No. 23

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

اكبر درجة فى الحد الأول = n + 4

اكبر درجة فى الحد الثانية = 9

الناتج :

n + 4 + 9 = n + 13

Total questions in exam: **25** | Answered: **19**

Question No. 23

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

Save & Next

Question No. 11

The imaginary unit i equal to

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

Save & Next حفظ والتالي

Question No. 11

The imaginary unit i equal to

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

Save & Next حفظ والتالي

Question No. 10

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

- $\emptyset$

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

- $\{5, 6\}$

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

Question No. 12

Evaluate for $x = -2, y = 5$, and $z = -3$ the expression: $\dfrac{\frac{x}{2} \cdot \frac{y}{5}}{\frac{3z}{9} + \frac{8y}{5}}$

○ $\dfrac{-2}{6}$

○ $\dfrac{7}{2}$

○ $\dfrac{-2}{7}$

○ $\dfrac{6}{2}$

صوتي بالحاسبة

1901w

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

$$4x^2 - 6x + 7 = 0$$

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

Save & Next خطوة الى الخلف

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

Save & Next خط والتالي

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

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

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

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

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

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

- {7}
- {6}
- Ø
- {6,7}

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

○ $r = \dfrac{P - A}{Pn}$

○ $r = \dfrac{Pn}{A - P}$

○ $r = \dfrac{A - P}{Pn}$

○ $r = \dfrac{A}{n}$

Total questions in exam: **25** | Answered: **19**

Question No. 25

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

- $X = \dfrac{b-a}{3b+5a}$
- $X = -4a$
- $X = 4a$
- $X = \dfrac{2a}{4b}$

Handwritten working:

$6x - 8a + 4b = 5x + 4b - 4a$

$6x - 5x = 4b - 4a + 8a - 4b$

$x = 4a$

Question No. 2

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

- Ø
- {Ø}
- {1}
- {0}

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

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

Question No. 18

Simplify and express your answer using positive exponents only.

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

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

Handwritten work:

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

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

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

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 $x \neq 1$

Save & Next حفظ والتالي

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

Question No. 19

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

- $\dfrac{3 \pm i\sqrt{15}}{2}$

- $\dfrac{-3 \pm i\sqrt{15}}{2}$

- $\dfrac{-3 \pm \sqrt{33}}{2}$

- $\dfrac{-3 \pm \sqrt{15}}{2}$

Question No. 17

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

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

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

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

Question No. 3

Perform the indicated operations $\quad 3p(8pq^4)^{1/3} - 2q(p^4q)^{1/3}$

- $4(pq)^{4/3}$
- $4pq^{4/3}$
- $(pq)^{4/3}$
- $4p^{4/3}q$

HP LE1901w

Question No. 4

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

$r = \dfrac{A}{n}$

$r = \dfrac{A - P}{Pn}$

$r = \dfrac{Pn}{A - P}$

$r = \dfrac{P - A}{Pn}$

Save & Next حفظ والتالي

MKCL OES

Total questions in exam: 25 | Answered: 0

Question No. 1

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

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

Save & Next

HP LE1901w

MKCL OES

Total questions in exam: 25 | Answered: 0

Question No. 1

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

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

Save & Next

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Question No. 5

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

○ $\emptyset$

○ -1

○ U

○ 1

Question No. 11

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

○ $x \cdot y^{\frac{1}{3}}$

○ $y \cdot x^{-\frac{1}{3}}$

○ $x^{\frac{1}{2}} y^{\frac{1}{6}}$

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

Save & Next حفظ والتالي

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

Question No. 5

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

- ⊘
- -1
- U
- 1

Question No. 21

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

- 6
- 4
- 5
- ③

البسـط درجتـه = 4

الـقاسم درجتـه = 1

درجـة ناتـج قسمتهـا =

$$4 - 1 = \boxed{3}$$

Save & Next مـدرطـفى

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

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

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

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

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

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

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

Question No. 6

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

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

MKCL OES

Total questions in exam: 25 | Answered: 13

Question No. 11

Compute $\left(\dfrac{a^{8/5}b^{2/3}}{a^{3/5}b^{8/3}}\right)^{3/4}\left(\dfrac{a^{1/2}b^{3/2}}{a^{3/4}b}\right)^{3}$

- ab
- $\dfrac{a^{3/4}}{b^{3/2}}$
- $\dfrac{b^{3/2}}{a^{3/4}}$
- 1

$$\left(\frac{a^{\frac{8}{5}\times\frac{3}{4}} \quad b^{\frac{2}{3}\times\frac{3}{4}}}{a^{\frac{3}{5}\times\frac{3}{4}} \quad b^{\frac{8}{3}\times\frac{3}{4}}}\right)\left(\frac{a^{\frac{1}{2}\times 3} \; b^{\frac{3}{2}\times 3}}{a^{\frac{3}{4}\times 3} \; b^{3}}\right)$$

$$\left(a^{\frac{6}{5}-\frac{9}{20}}\cdot b^{\frac{1}{2}-2}\right)\left(a^{\frac{3}{2}-\frac{7}{4}} \; b^{\frac{9}{2}-3}\right)$$

$$\frac{a^{\frac{3}{4}}\cdot}{b^{\frac{3}{2}}}\cdot\frac{b^{\frac{3}{2}}}{a^{\frac{3}{4}}}$$

$$a^{\frac{3}{4}-\frac{7}{4}} \qquad b^{\frac{3}{2}-\frac{3}{2}} = a^{0}\,b^{0}$$

$$\boxed{=1}$$

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MKCL OES

Total questions in exam: 25 | Answered: 13

Question No. 11

Compute $\left(\dfrac{a^{8/5}b^{2/3}}{a^{3/5}b^{8/3}}\right)^{3/4}\left(\dfrac{a^{1/2}b^{3/2}}{a^{3/4}b}\right)^{3}$

- ⦿ ab

- ⦿ $\dfrac{a^{3/4}}{b^{3/2}}$

- ⦿ $\dfrac{b^{3/2}}{a^{3/4}}$

- ⦿ 1

Save & Next منها والتالي

Question No. 1

Simplify $\dfrac{a^{\frac{4}{2}} \times b^{\frac{2}{3}}}{(ab)^{\frac{1}{3}}}$

- $a\,(ab)^{\frac{2}{3}}$

- $a\,(a^2 b)^{\frac{1}{3}}$

- $a \cdot b^{\frac{1}{3}}$

- $(ab)^{\frac{2}{3}}$

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Question No. 1

Simplify $\dfrac{a^{\frac{4}{2}} \times b^{\frac{2}{3}}}{(ab)^{\frac{1}{3}}}$

- $a\,(ab)^{\frac{2}{3}}$
- $a\,(a^2b)^{\frac{1}{3}}$
- $a \cdot b^{\frac{1}{3}}$
- $(ab)^{\frac{2}{3}}$

Save & Next حفظ والتالي

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. 1

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

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

Save & Next

HP LE1901w

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

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

Maths_S

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Question No. 21

The degree of the quotient of the division

$$(7x^4 - 4x^3 + 6x - 5) \div (x + 2) \text{ equals:}$$

○ 6

○ 4

○ 5

○ 3

Save & Next معلومات

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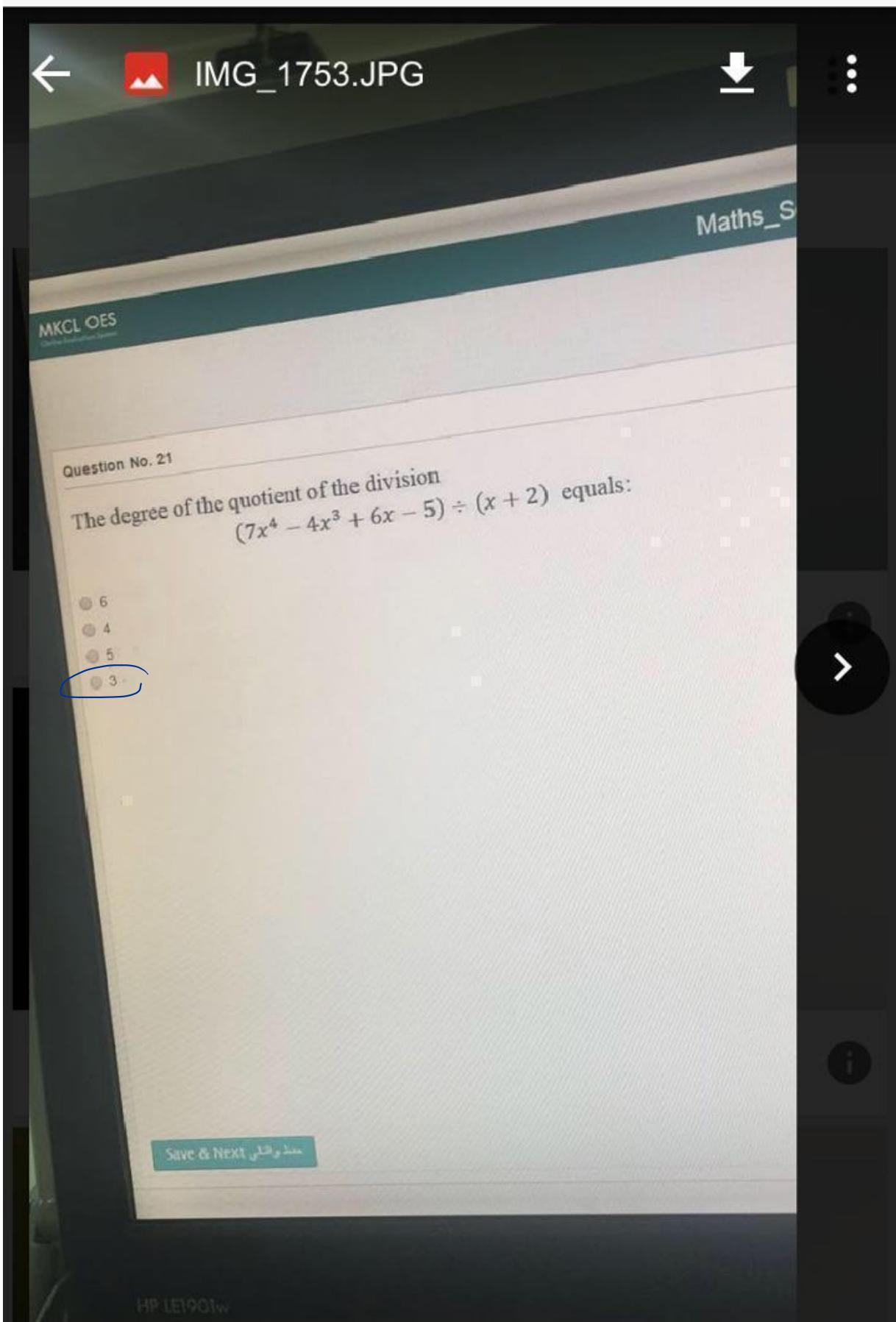
The base of $-5p^4$ is

- ○ 4
- ○ 5
- ○ p
- ○ -5p

Next ىلاو ردصم

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

حفظ والتالي ave & Next

lw

تجميعات
رياضيات كويز 1