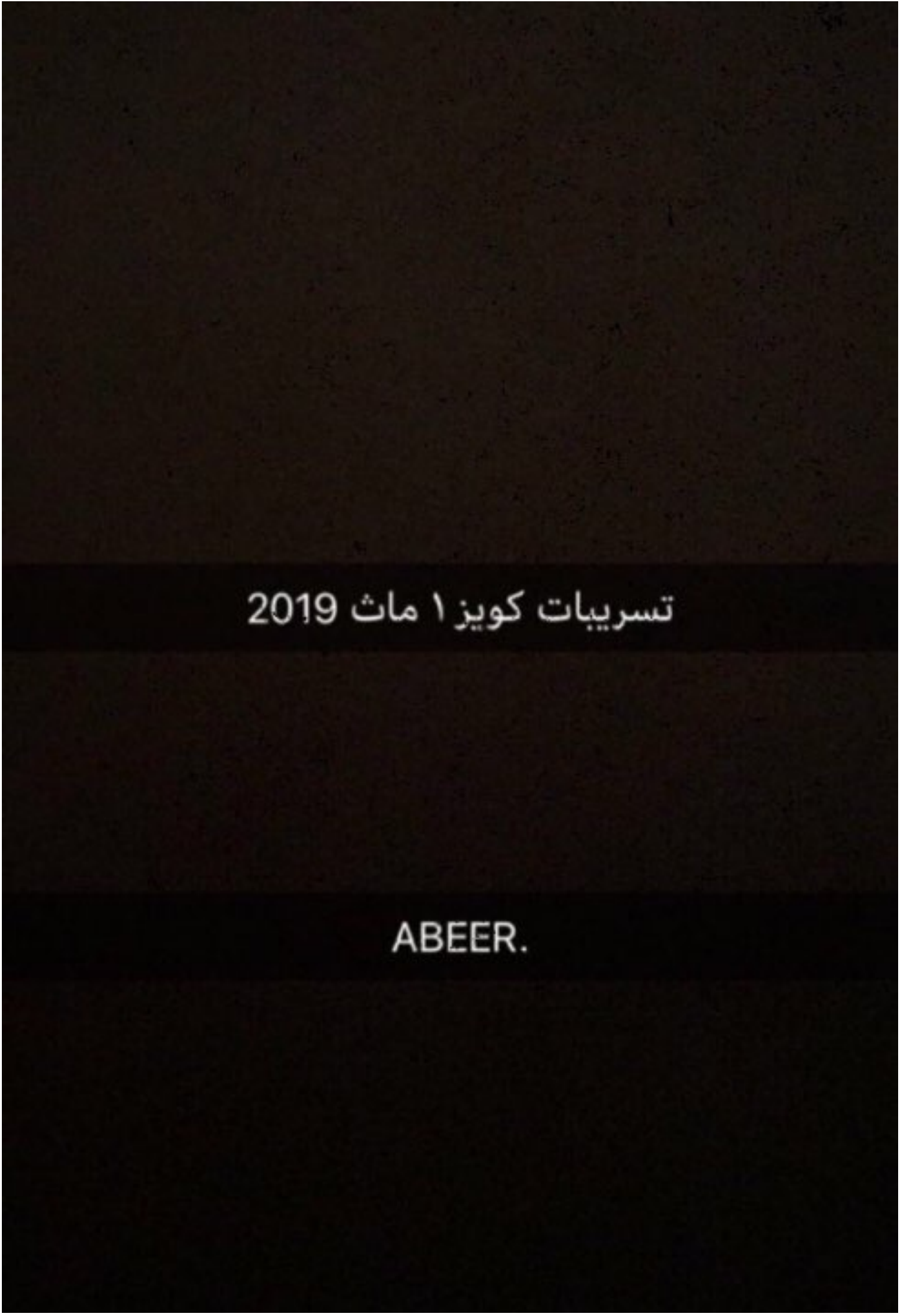


Question No. 5

Simplify the expression using the quot

- $\frac{8p^6r^9}{27q^6}$
- $\frac{2p^6r^9}{3q^6}$
- $\frac{8p^9r^{18}}{27q^9}$
- $\frac{2p^9r^{18}}{3q^9}$

Total questions in exam: 25 | Answered: 0

Question No. 4

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

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

A ✌🏻

Question No. 6

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

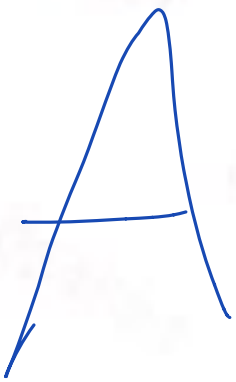
- $\{1,2,\phi\}$
- $\{1,2\}$
- $\{1\}$
- $\emptyset$

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



Question No. 2

Simplifying the power of i^{1235} gives

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

0.25 ⟶ i

0.50 ⟶ −1

0.75 ⟶ −i

$\frac{1235}{4} = 308.75 = -i$

Question No. 3

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

- ∅
- 1
- {2,3}
- All real numbers

Total questions in exam: 25 | Answered: 0

Question No. 9

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

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

بالتعويض عن $x = 5$

C

Question No. 8

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

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

$A' = \{-2, 1, 3\}$

$B = \{-2, -1, 3\}$

Total questions in exam: 25 | Answered: 0

Question No. 1

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

- 2xy
- 6
- 2
- 3

D

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

Question No. 13

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

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

Question No. 14

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

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

$X + 3 = 0 \rightarrow X = -3$

$2x - 3 = 0 \rightarrow 2X = 3$

$= X = \frac{3}{2}$

Total questions in exam: 25 | Answered: 0

Question No. 10

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

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

$$-3x^2 \overline{)\, -33x^8 - 9x^6 + 30x^4 - 21x^2}$$

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

$-33x^8$

$-9x^6 + 30x^4 - 21x^2$

$-3x^8$

$-9x^6 + 30x^4 - 21x^2$

$-9x^6$

$30x^4 - 21x^2$

$30x^4$

$-21x^2$

$-21x^2$

0

Question No. 12

Simplify the compound ratio

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

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. 25

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

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

D

$$\frac{2}{-i} \cdot \frac{i}{i} = \frac{2i}{-i^2} = \frac{2i}{1} : 2i$$

A

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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

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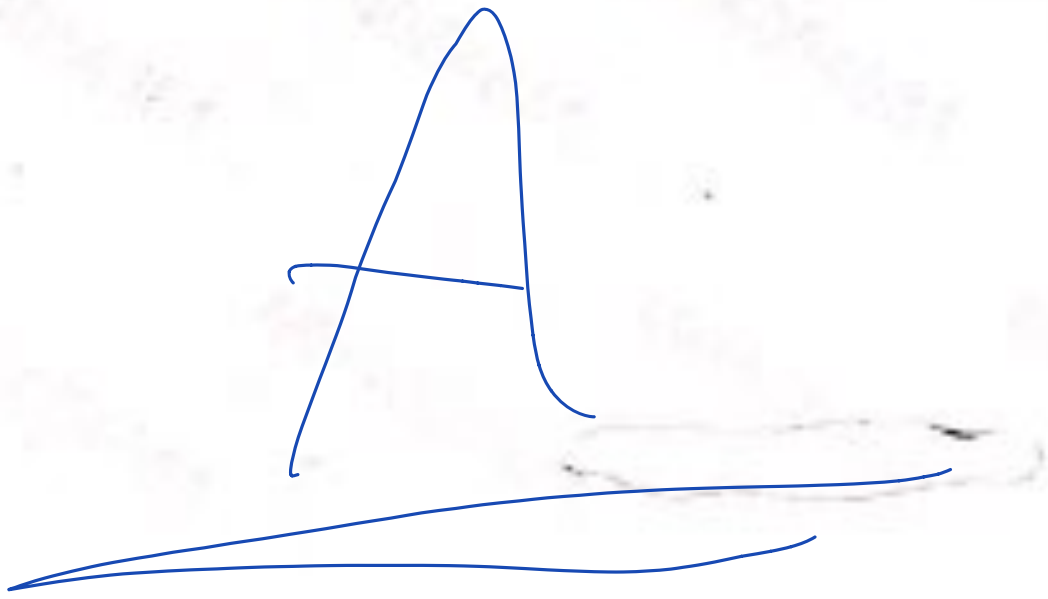
Total questions in exam: 25 | Answered: 11

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



Question No. 20

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

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

Question No. 19

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

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

توحيد المقامات ×

$$\frac{32}{12x} + \frac{9}{12x} - \frac{42}{12x} = \frac{32+9-42}{12x}$$

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

D

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. 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

نرتب بنفس الترتيب $\longrightarrow -3(4x^2-9)$

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

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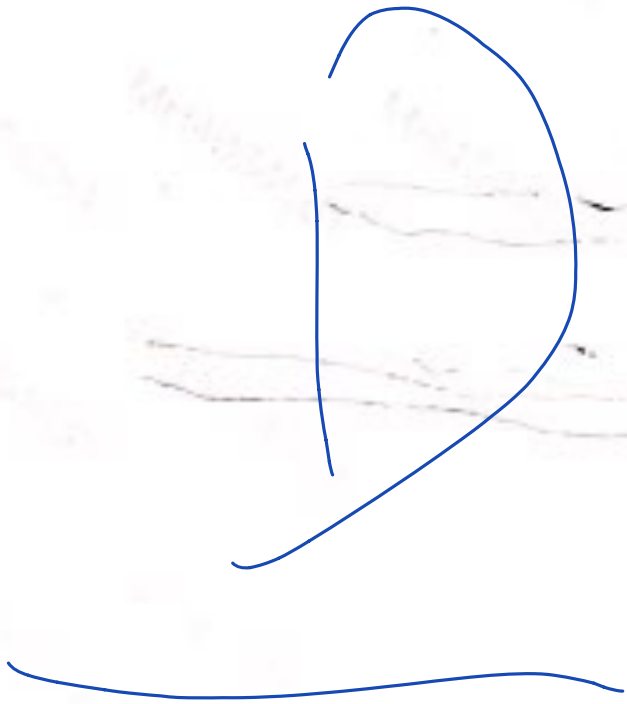
Question No. 19

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

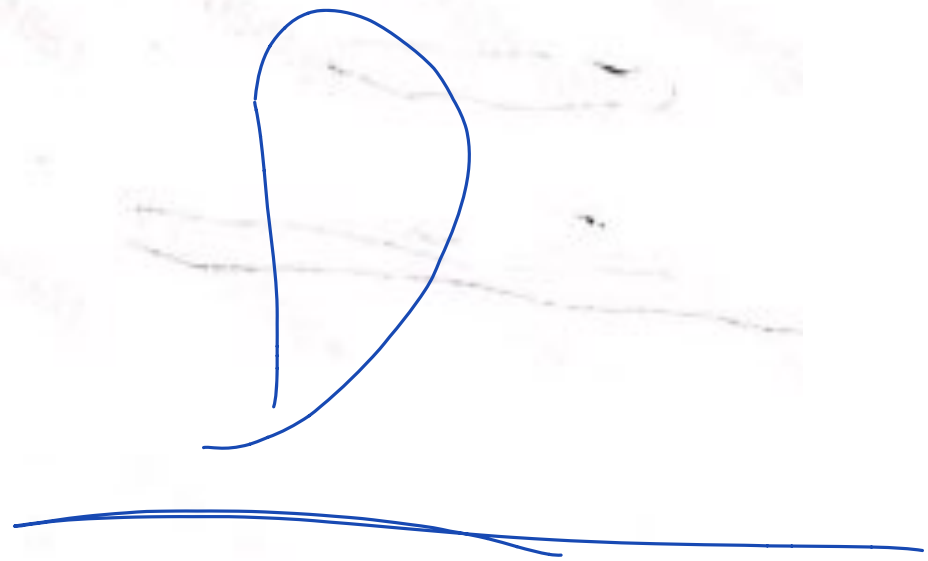
- $\frac{1}{12x}$
- $-\frac{1}{6x}$
- $\frac{1}{6x}$
- $-\frac{1}{12x}$



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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Question No. 15

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

- $\{0, 4, 6, -2\}$
- $\{-3, -1, 1, 2, 3, 5\}$
- $\{-3, -2, -1, 1, 3, 5\}$
- $\{-3, -2, -1, 1, 3, 5, 2\}$

Total questions in exam: 25 | Answered: 0

Question No. 25

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

- 3
- 2xy
- 2
- 6

Save & Next

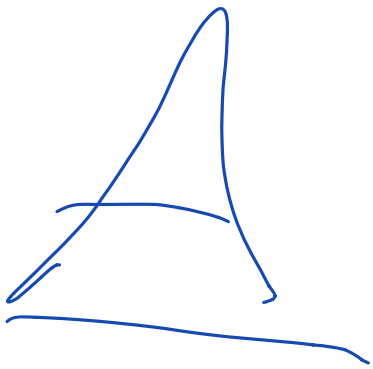
Total questions in exam: 25 | Answered: 0

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 بـ $x=7$



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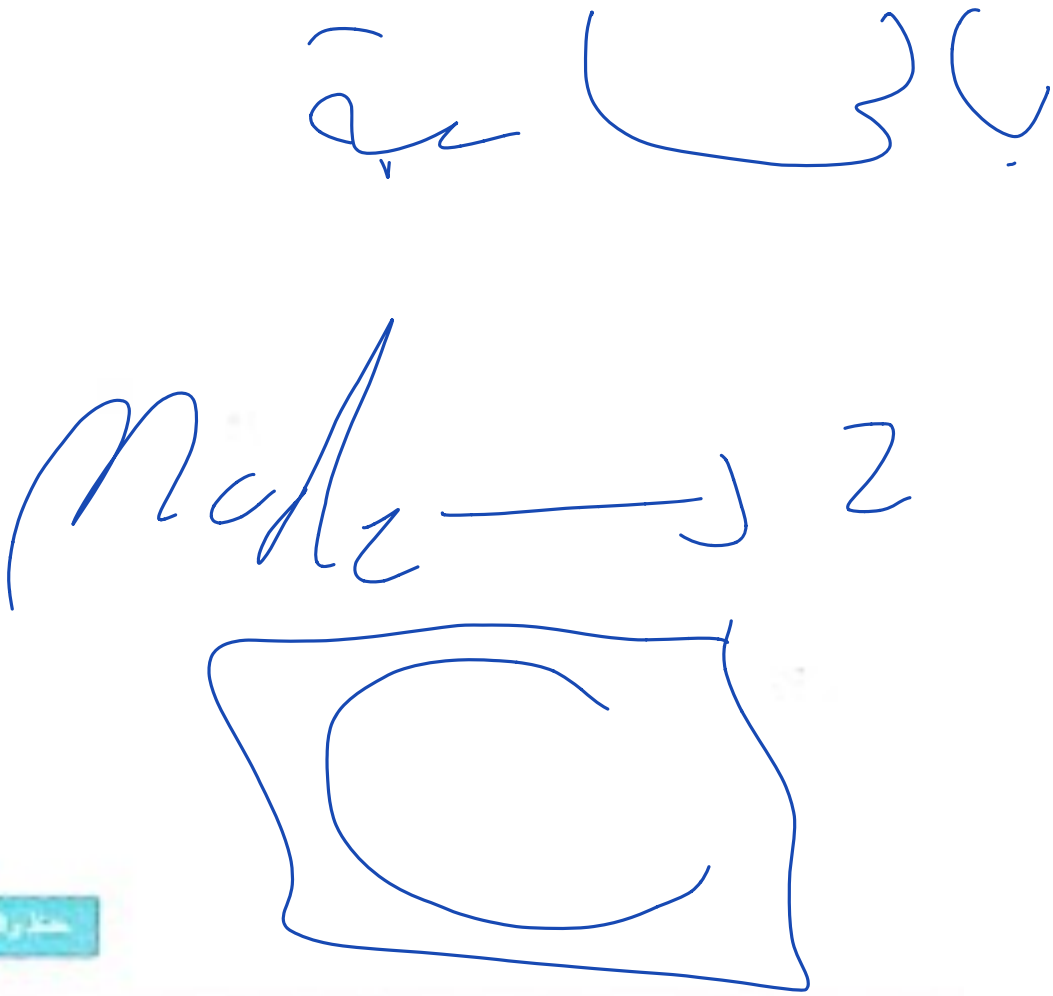
Total questions in exam: 25 | Answered: 0

Question No. 23

Perform the indicated operation.

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

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

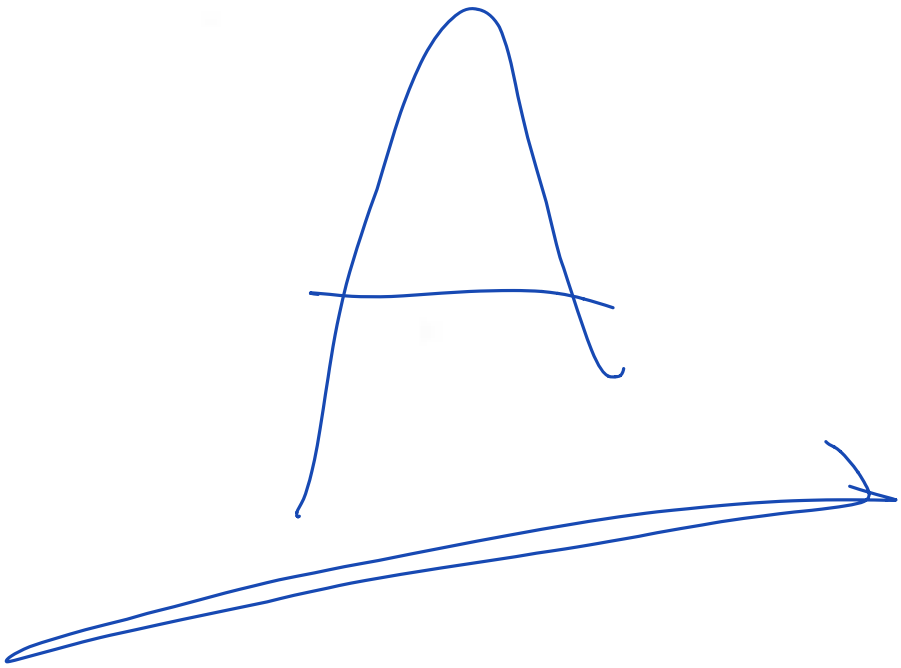


Save & Next

Question No. 24

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

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



Save & Next

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

Question No. 14

The domain of $\frac{x}{x^2-5x-6}$ is

- $R \setminus \{-1\}$
- $R \setminus \{6\}$
- $R \setminus \{-1,6\}$
- $R \setminus \{1,6\}$

بالعربية

Mode → 5 → 3

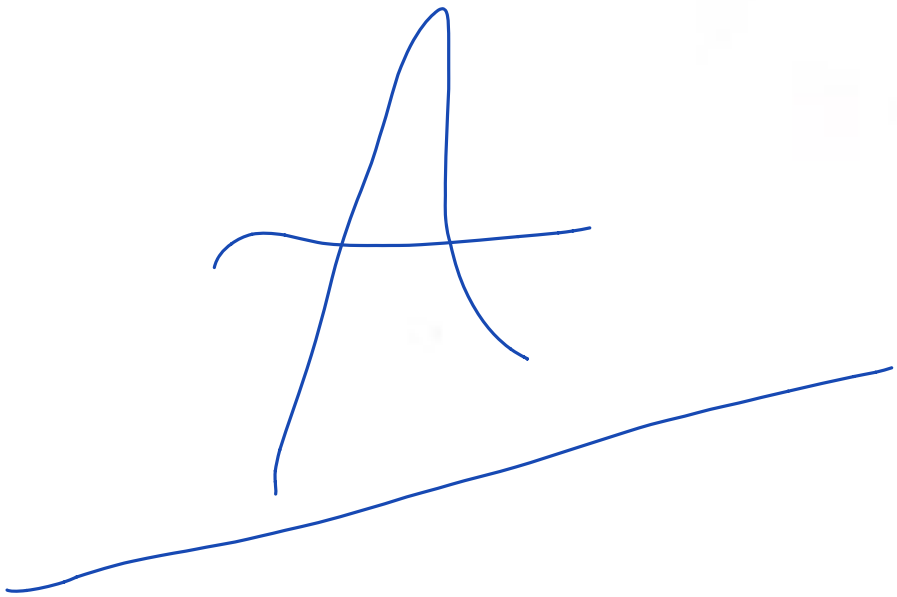
C

Save & Next حفظ والتالي

Question No. 13

Factor $-12x^2 + 27$

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



Save & Next

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

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

$2AP - 3rt = 5Prt$

$-3rt = 5Prt - 2AP$

$P(5rt - 2A) = -3rt$

$P = \frac{-3rt}{5rt-2A} = \frac{+3rt}{+(2A-5rt)}$

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

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

Total questions in exam: 25 | Answered: 0

Question No. 12

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

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

A

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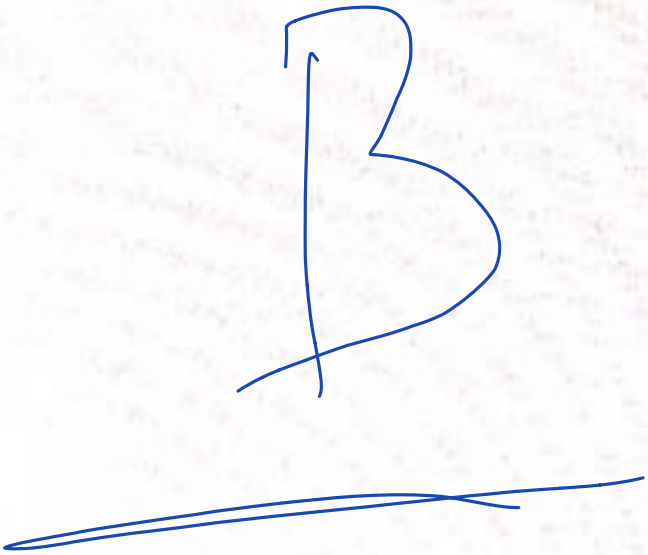
Question No. 9

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

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



Question No. 8

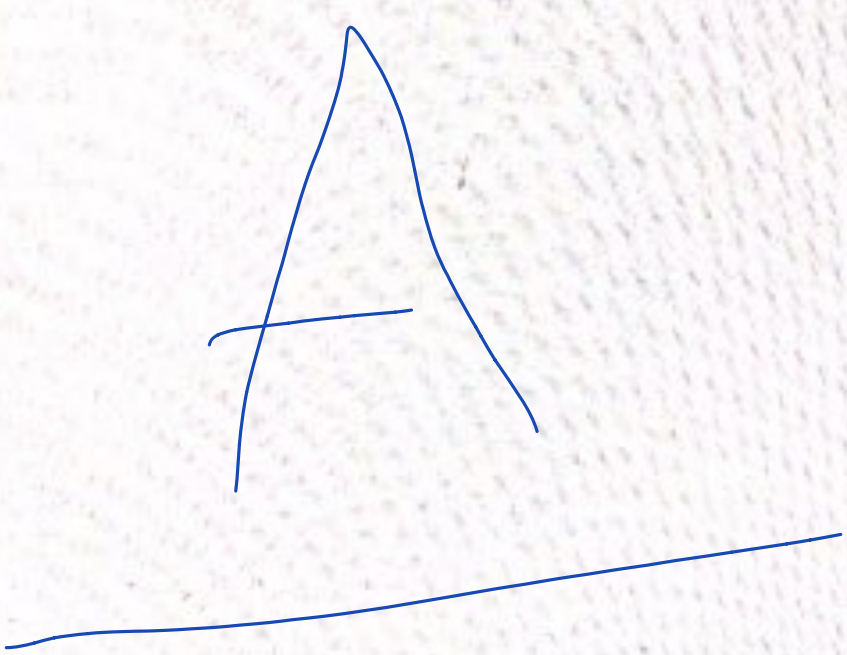
Simplify the expression

- $-6-2\sqrt{11}$
- $12-4\sqrt{11}$
- $-6+2\sqrt{11}$
- $12+4\sqrt{11}$

Question No. 7

Simplifying the power of i^{1235} gives

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



$r \neq 0$. Factor out th

)

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

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

بالتعويض عن $x=-9$

B

Dividing $-33x^8 - 9x^6 + 30x^4 -$

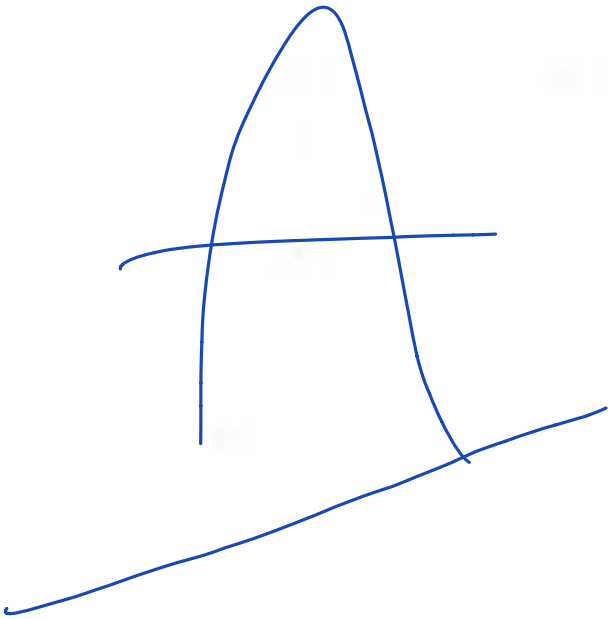
- $11x^6 + 3x^4 - 10x^2 - 7$
- $11x^6 + 3x^4 - 11x^2 + 7$
- $11x^6 + 3x^4 - 10x^2 + 7$
- $11x^6 + 3x^4 - 11x^2 + 7x$

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

Question No. 3

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

- All real numbers
- $\varnothing$
- {2,3}
- 1



Simplify the expression, assuming that the variable can represe

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

-2.10×10^{-3}

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

MKCL OES

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

Save & Next

Total questions in exam: 25 | Answered: 0

Question No. 23

Perform the indicated operation.

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

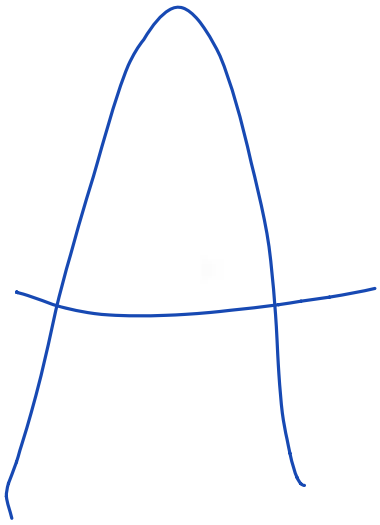
- $\frac{41}{29} - i$
- $\frac{7}{5} + \frac{3}{2}i$
- $\frac{41}{29} - \frac{1}{29}i$
- $1 - \frac{1}{29}i$

Save & Next حفظ والتالي

Question No. 24

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

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



Save & Next

Total questions in exam: 25 | Answered: 0

Question No. 25

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

- 3
- 2xy
- 2
- 6

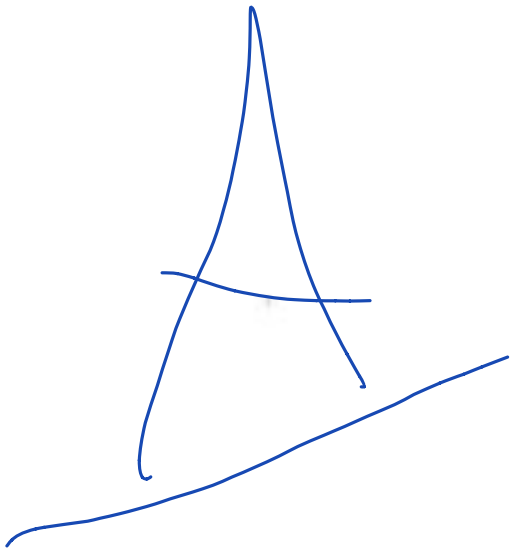
Save & Next

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

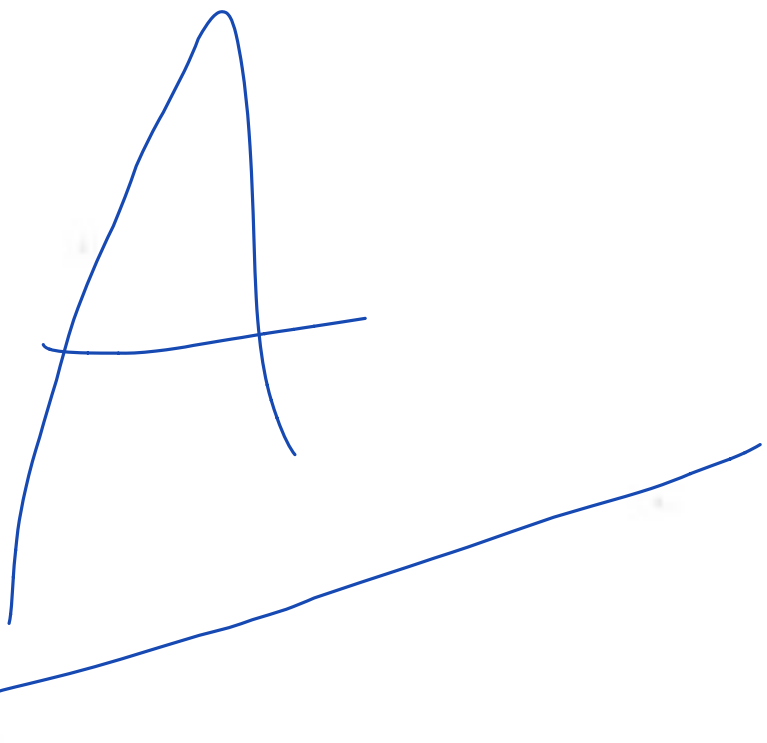


Save & Next

Question No. 18

Factoring $x^3 - y^3$

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



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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

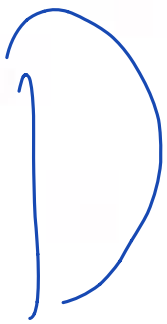
Total questions in exam: **25** | Answered: **0**

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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- $2x^3+2x^2+6x^3+3$
- $14x^{24}+5$
- $15x^{10}-9x^8+8x^6+5$
- $15x^7-9x^4+8x^3+5$

Save & Next

Question No. 16

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

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

الحل: بيخلي (-9) تطلع موجبة

يعني لازم يكون الاس موجب

D

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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

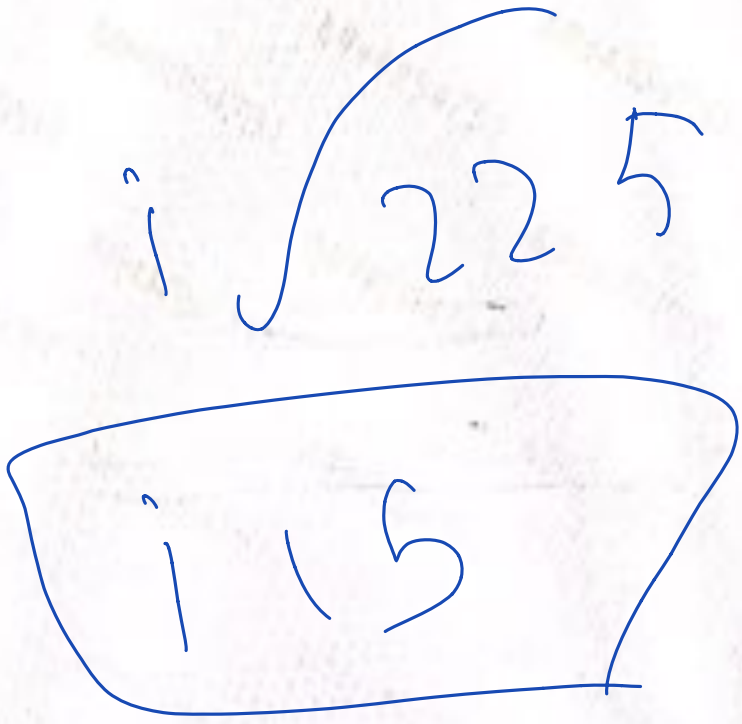
Total questions in exam: 25 | Answered: 2

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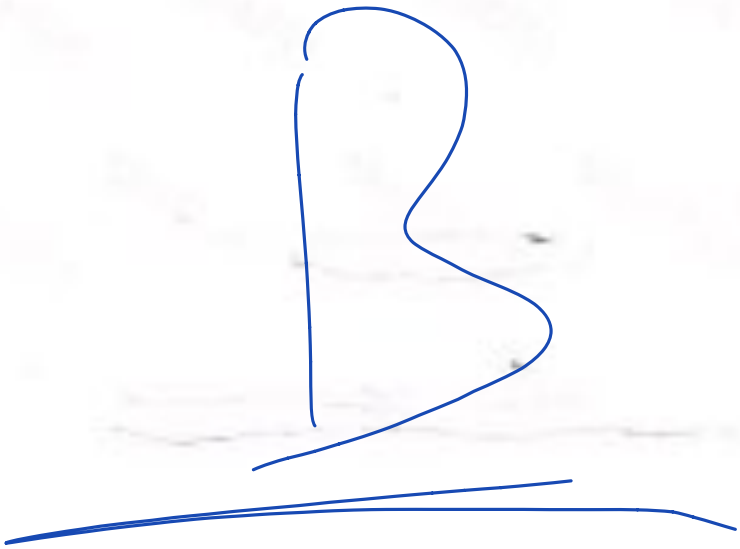
Total questions in exam: **25** | Answered: **2**

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}.



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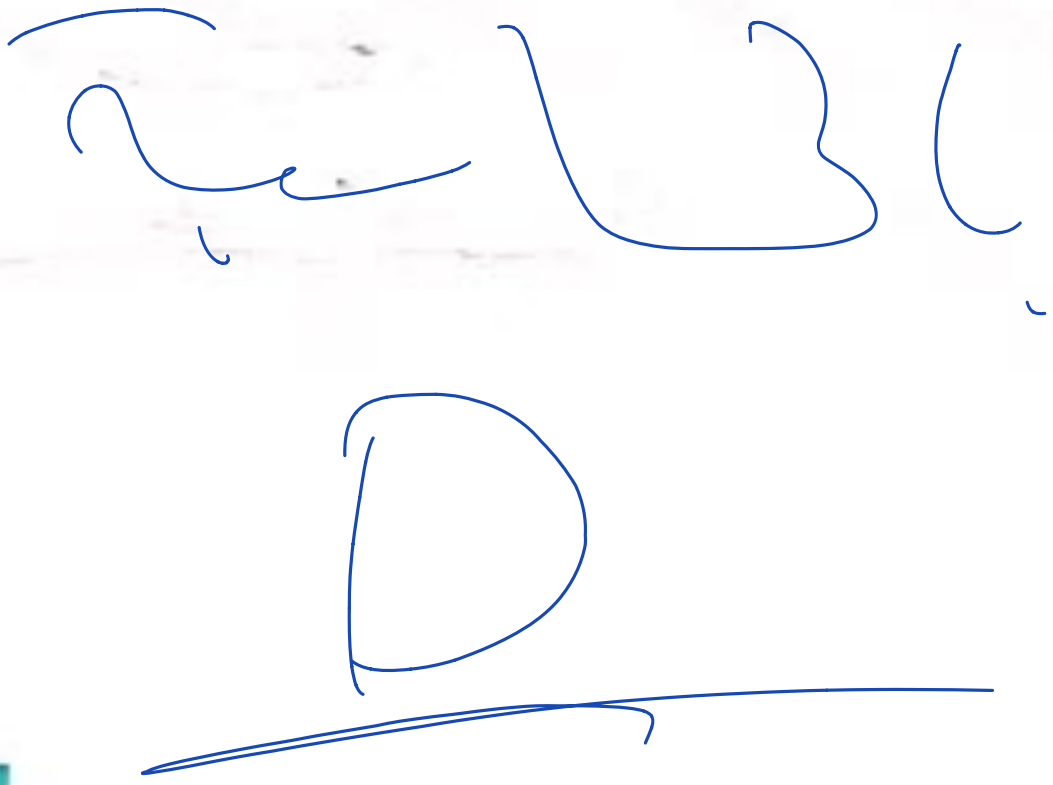
Question No. 11

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

- $\{\frac{3}{7}\}$
- $\{-\frac{3}{7}\}$
- $\{\frac{7}{3}\}$
- $\{-\frac{7}{3}\}$



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Question No. 7

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

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

$y^4 = q^2$

$q^2 - 13q + 36$

$(q-4)(q-9)$

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

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

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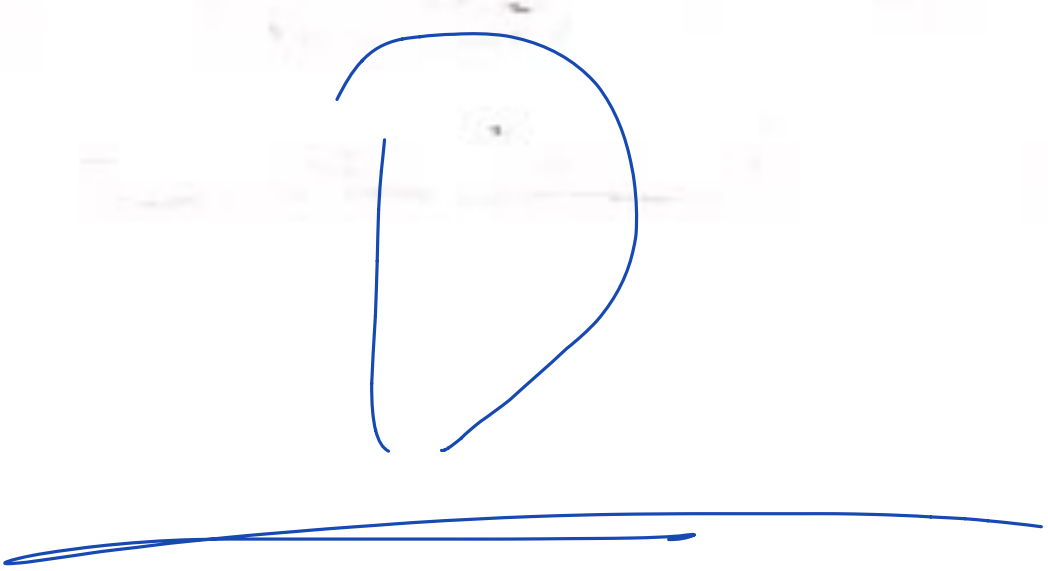
Question No. 8

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

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



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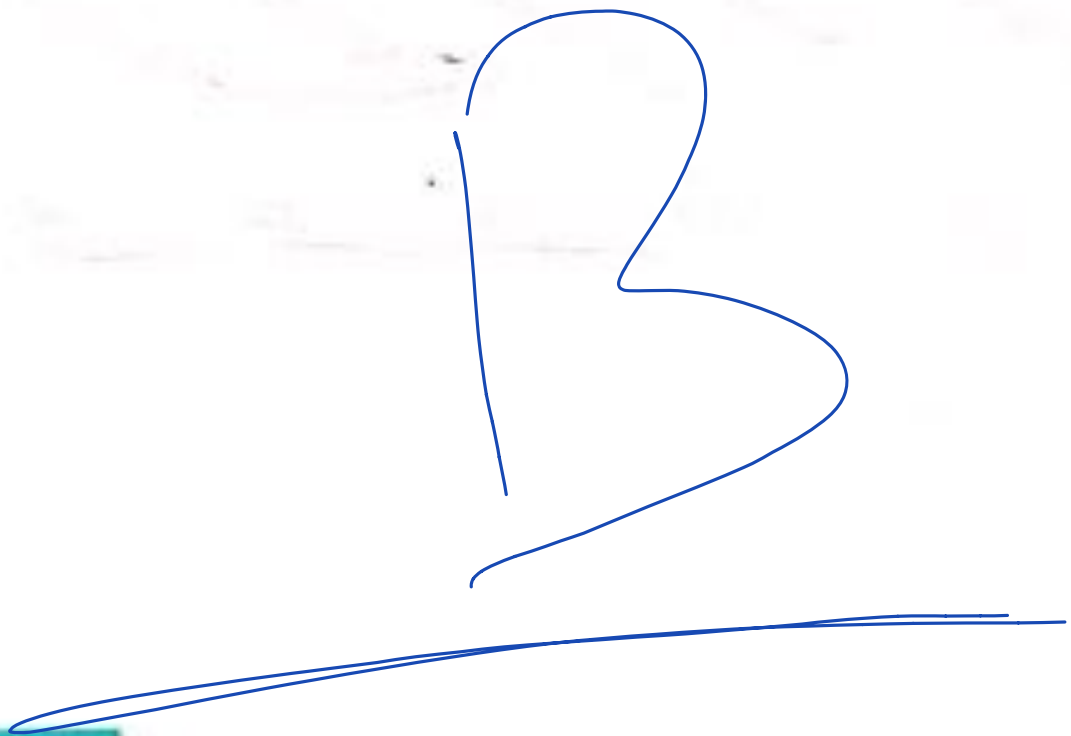
Total questions in exam: 25 | Answered: 1

Question No. 9

Factoring $x^3 - y^3$

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



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Question No. 6

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

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

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

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

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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

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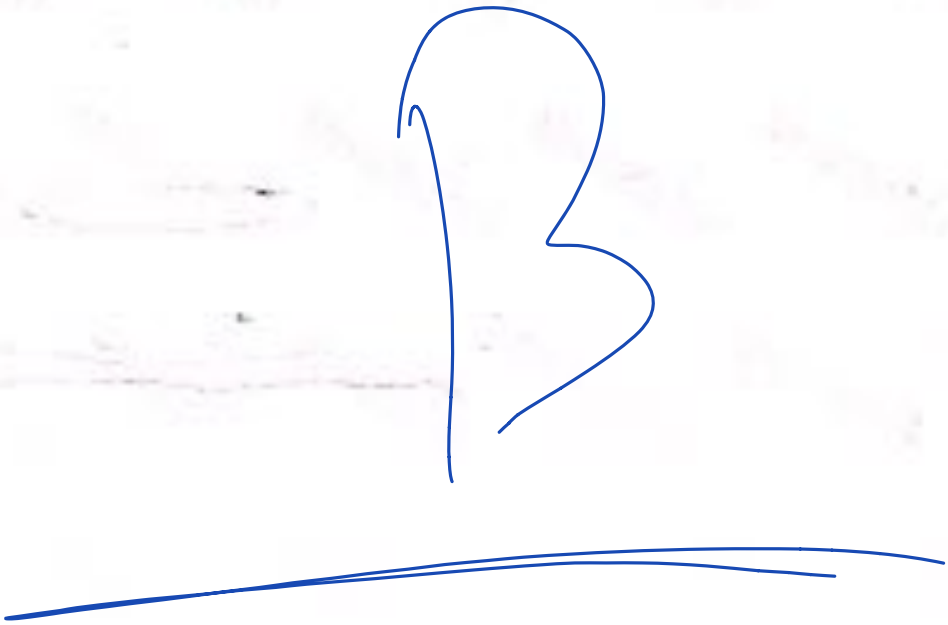
Question No. 1

Select the correct property that describes the given equation.

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

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



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Question No. 4

Evaluate for $x = -2, y = 5,$ and $z = -3$ the expression : $\frac{2(x-5)^2+4y}{z+4}$

- 118
- -181
- 181
- -118

الجواب = A

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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

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Question No. 3

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

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

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

$$\left(x^{\frac{5}{2}}\ y^{\frac{7}{3}}\right)^{-\frac{1}{7}} = \frac{1}{x^{\frac{5}{14}}\ y^{\frac{1}{3}}}$$

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