

OCTOBER
REVISION



المنقذ



You Must Add Value

MATH

اعداد

محمود الخولي

PREP

1

2027



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Question 1 : Choose the correct answer :

- ① If the scale drawing lengths is 3 cm and the real lengths is 18 meters , then the scale drawing is
 - (a) 1: 60
 - (b) 1: 600
 - (c) 1: 6
 - (d) 1: 6,000
- ② If $\frac{15}{y} = \frac{3}{4}$, find the value of y ?
 - (a) 100
 - (b) 20
 - (c) 60
 - (d) 75
- ③ If the drawing scale is 1:1,000 and the length in the drawing is 2.5 cm what is the real length ?
 - (a) 0.25 m
 - (b) 25 m
 - (c) 2.5 m
 - (d) 250 m
- ④ If the amount of 180 pounds is divided in a ratio of 2:1 , the smaller share ispounds
 - (a) 60
 - (b) 90
 - (c) 120
 - (d) 30
- ⑤ The percentage of 30 out of 150 equals
 - (a) 10%
 - (b) 15%
 - (c) 20%
 - (d) 25%
- ⑥ If the price of a product after 25% discount is 180 pounds , then the original price is pounds
 - (a) 200
 - (b) 220
 - (c) 240
 - (d) 260
- ⑦ $\{1, 2, 3\} \dots \emptyset$
 - (a) $\in$
 - (b) $\notin$
 - (c) $-1 - x$
 - (d) $1 - x$
- ⑧ If $\{x, 3, 4\} = \{y, 2, 3\}$, then $x + y$
 - (a) 4
 - (b) 5
 - (c) 6
 - (d) 7
- ⑨ The result of $(-5) \times (-3) + (-4)$ is :
 - (a) -19
 - (b) -11
 - (c) 11
 - (d) 19

Question 2 : Answer the following questions :

- ① If $\frac{x-2}{60} = \frac{5}{15}$, find the value of $2x$
- ② If $\frac{x}{4} = 0.2$ find the value of x
- ③ Find in its simplest form the value of $(\frac{3}{11} + \frac{1}{11}) \div \frac{4}{33}$
- ④ Simplify : $5(a - 2b) + 3(4a + b)$ in its simplest form
- ⑤ If $A = \{9, 10, 8\}$, $B = \{4, 9, 7\}$, $C = \{1, 9\}$, find :
 1) $A \cap B \cap C$
 2) $A \cup (B \cap C)$
- ⑥ If the discount rate is 20 % on any inside a clothing store , what is the purchase price of pants that cost 500 pounds before the the discount ?
- ⑦ If the price of the car tire is 3500 pounds , what would be the selling price of the tire after adding a tax rate of 10% ?

model (2)

Question 1 : Choose the correct answer :

- ① If $\frac{3}{2} = \frac{9}{b+1}$,then $\frac{1}{5}b = \dots$
 (a) $\frac{5}{5}$ (b) 10 (c) 25 (d) 1
- ② Which of the following represents proportion?
 (a) $\frac{5}{3} = \frac{3}{5}$ (b) $\frac{4}{7} = \frac{8}{14}$ (c) $\frac{5}{6} = \frac{10}{3}$ (d) $\frac{2}{3} = \frac{6}{4}$
- ③ If the quantities 3, m, 15, 10 are proportional then $m = \dots$
 (a) 3 (b) 6 (c) 4 (d) 2

- 4 If a scale drawing >1 , then it represents...
 (a) Magnification (b) Minimization (c) Equality (d) Other side
- 5 An amount of 1600 pounds was divided between two people in ratio 3:5 so the smaller share = ... pounds
 (a) 200 (b) 600 (c) 1000 (d) 800
- 6 If the price of a blender increase from 700 LE to 840 L.E. so the rate of increases is ...
 (a) 40% (b) 15% (c) 18% (d) 20%
- 7 $\{3\} \dots \{6, 2, 33\}$
 (a) $\in$ (b) $\notin$ (c) $\subset$ (d) $\not\subset$
- 8 Which of the following is a proper subset of the set $X = \{1, 3, 2, 5, 4\}$
 (a) $\{3, 5, 9\}$ (b) $\{1, 5, 6\}$ (c) $\{1, 4, 2\}$ (d) $\emptyset$
- 9 The additive inverse of the number $|-3|$ is ...
 (a) 4 (b) -3 (c) 3 (d) 5

Question 2 : Answer the following questions :

- 1 In a factory, 10 workers produce 300 pieces of cloth. How many workers needed to produce 630 pieces?
 Answer:
- 2 Write all the subsets from the set $\{1, 8\}$
- 3 If $a = 1$, $b = 7$, $c = -3$ find in simplest form the value of the expression $(5a+b) \div c$
- 4 Find in its simplest form the value of $(\frac{5}{7} + \frac{1}{7}) \div \frac{12}{14}$
- 5 A magnified image of a microscope insect was taken if its length in the image is 12 cm and its real length is 3mm find the scale of the drawing
- 6 If $\frac{x-2}{6} = \frac{3}{18}$, Find the value of $3X$

7

If $A = \{2, 4, 6\}$, $B = \{4, 6, 8\}$
 Find $A \cap B$ and $A \cup B$

model (3)

Question 1 : Choose the correct answer :

1

If $x = |-4|$, $y = -1$, then $xy = \dots$

(a)

4

(b)

3

(c)

-4

(d)

-3

2

The result of subtracting $\frac{3}{5}$ from $\frac{7}{10} = \dots\dots$

(a)

$\frac{4}{5}$

(b)

$\frac{1}{5}$

(c)

$\frac{1}{10}$

(d)

$-\frac{4}{5}$

3

The algebraic term $-5X$ exceeds the algebraic term $-11X$ by

(a)

$-16X$

(b)

$6X$

(c)

$-6X$

(d)

$16X$

4

If $A = \{7, 8, 0\}$, then the number of all subsets of A is

(a)

2

(b)

3

(c)

8

(d)

9

5

If the scale drawing < 1 then that represents

(a)

reduction

(b)

magnification

(c)

equality

(d)

other wise

6

$5 - (-3)$

(a)

8

(b)

-8

(c)

2

(d)

-2

7

The mathematical expression which expresses Hazem age after 10 years, if his age now is X years old is

(a)

$X + 10$

(b)

$X - 10$

(c)

$10X$

(d)

X

8

The additive invers of $|-3|$ is

(a)

3

(b)

-3

(c)

0

(d)

$\frac{1}{3}$

- 9 Which of the following doesn't equal $4a$?
- (a) $a + 3a$ (b) $a + a + a + a$ (c) $2a + 2a$ (d) $4 + a$

Question 2 : Answer the following questions :

- 1 If the real length is 90 meters and the scale drawing is $1 : 10,000$, what is the length in drawing in centimeters ?
- 2 The algebraic expression: $5X + 3y - 5Xy - 7$ have 4 terms write:
- a) Constant term
b) Coefficient of term Xy
c) The variable which coefficient is 3
- 3 Find all proper subsets of $\{2, 3, 5\}$.
- 4 Add the expressions : $3a - 2b$ and $2a + 5b$ then find the numerical Values of the result when $a = 2$, $b = 1$
- 5 If $A = \{2, 4, 6\}$, $B = \{4, 6, 8\}$ find : $A \cap B$ and $A \cup B$
- 6 If $\frac{x-2}{6} = \frac{3}{18}$, find the value of $3X$
- 7 Subtract :
- $$\begin{array}{r} 2x - 3y + 5 \\ - \\ -x + 3y - 3 \\ \hline \dots \dots \dots \end{array}$$

model (4)

Question 1 : Choose the correct answer :

- 1 The mathematical expression which expresses that subtract (-2) from X
- (a) $x - 2$ (b) $2 - x$ (c) $-2 - x$ (d) $x + 2$
- 2 The fourth proportional for the number 7 , 5 and 14 is
- (a) 10 (b) 20 (c) 49 (d) 35

- 3 Which of the following is equal to $5a$?
- (a) $3+2a$ (b) $2+3a$ (c) $2a+3a$ (d) $5+a$
- 4 If $\{4, 3\} \cap \{x, 1, 2\} = \{3\}$, then $x = \dots$
- (a) 2 (b) 5 (c) 3 (d) 4
- 5 $5a + (-3a) = \dots\dots$
- (a) $8a$ (b) $2a$ (c) $-2a$ (d) $-8a$
- 6 The result of $(-5) \times (-3) + (-4)$ is
- (a) -19 (b) -11 (c) 11 (d) 19
- 7 If the ratio between two number is 3:2 and the difference between them is 10 , then two numbers are
- (a) 5, 15 (b) 20, 30 (c) 8, 18 (d) 14, 24
- 8 Which of the following products has a negative sign?
- (a) $-3 \times (-9)$ (b) $(-2) \times 5$ (c) $0 \times (-5)$ (d) $-1 \times (-1)$
- 9 $x + x + x = \dots\dots$
- (a) $3x^2$ (b) x^3 (c) $3+x$ (d) $3x$

Question 2 : Answer the following questions :

- 1 Use the addition properties in Z to find the result of: $(-10) + 2 + (-8) + 6$
- 2 If the price of a dress is 810 pounds after the discount , then if the discount rate is 10% of the original price , calculate the price of the dress before the discount ?
- 3 If the real distance between Cairo and Damietta is 200 km and the distance between them on the map is 5 cm , find the map's scale drawing.
- 4 Find the solution set of $2 \times -7 = -6$ in Q
- 5 Two integer numbers their product is (-25) and their sum is zero . what are the tow numbers ?
- 6 Find in its simplest form the value of : $\left(\frac{3}{11} + \frac{1}{11}\right) \div \frac{4}{33}$

7 If $X = \{2,4\}$, $y = \{4,6\}$, then find $X \cap y$

model (5)

Question 1 : Choose the correct answer :

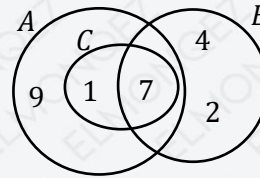
- 1 $|-5| + \dots = 0$
 - (a) -5
 - (b) 5
 - (c) 0
 - (d) 1
- 2 If $A = \{2,5,8\}$, which of the follwing is correct ?
 - (a) $\{2\} \in A$
 - (b) $\{2\} \notin A$
 - (c) $\{5\} \subset A$
 - (d) $\{8,5\} \not\subset A$
- 3 If $A = -2$, $B = 3$ then the value of $(A + B) - (A \times B)$ is :
 - (a) 7
 - (b) -7
 - (c) 1
 - (d) -1
- 4 Which of the following is proper subset of the $A = \{1,3,2,5,4\}$
 - (a) $\{3,5,9\}$
 - (b) $\{1,5,6\}$
 - (c) $\{1,4,2\}$
 - (d) $\emptyset$
- 5 The number of actual proper of the set $\{2,5,9\}$
 - (a) 3
 - (b) 6
 - (c) 8
 - (d) 5
- 6 Which of the following sums has a positive sign ?
 - (a) $19 + (-26)$
 - (b) $-35 + 17$
 - (c) $-25 + (-12)$
 - (d) $40 + (-18)$
- 7 The third term in $\frac{3.5}{7} = \frac{?}{12}$ is
 - (a) 3
 - (b) 6
 - (c) 7
 - (d) 12
- 8 The solution set of the equation $4x = -12$ in N is
 - (a) $\{-3\}$
 - (b) $\{3\}$
 - (c) $\emptyset$
 - (d) $\{0\}$
- 9 If the length in a drawing is 2 cm and the real length is 6 meter then the drawing scale is
 - (a) 1 : 3
 - (b) 1 : 300
 - (c) 1 : 3,000
 - (d) 1 : 30

Question 2 : Answer the following questions :

- ① In a factory , 10 workers produce 300 pieces of colth . how many workers produce 630 pieces ?
- ② Ameal costs 180 L.E and 15 % profit is added to the cost of the meal , what is the selling price of the meal ?
- ③ If $A = \{1, 7, 9\}$, $B\{4, 2, 7\}$ and $c = \{1, 7\}$.

Find :

- 1) $A \cap B \cap C$
- 2) $A \cup B \cup C$



- ④ If $\{6, 3, a, 7\} = \{3, 5, b, 6\}$ what is the value of $a + b$?
- ⑤ If the number of students in a school is 650 , and the ratio between the number of boys and girls is 6 : 7 , calculate the excess number of girls over the number of boys ?
- ⑥ Write in listing method the set A , where A is a set even natural numbers less than 15
- ⑦ Find the value of expression $4x + 3x - 5x$ when $x=2$

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Question 1 : Choose the correct answer :

- 1 If the scale drawing lengths is 3 cm and the real lengths is 18 meters , then the scale drawing is
 (a) 1: 60 (b) **1: 600** (c) 1: 6 (d) 1: 6,000
- 2 if $\frac{15}{y} = \frac{3}{4}$, find the value of y ?
 (a) 100 (b) **20** (c) 60 (d) 75
- 3 If the drawing scale is 1:1,000 and the length in the drawing is 2.5 cm what is the real length ?
 (a) 0.25 m (b) **25 m** (c) 2.5 m (d) 250 m
- 4 If the amount of 180 pounds is divided in a ratio of 2:1 , the smaller share ispounds
 (a) **60** (b) 90 (c) 120 (d) 30
- 5 The percentage of 30 out of 150 equals
 (a) 10% (b) 15% (c) **20%** (d) 25%
- 6 If the price of a product after 25% discount is 180 pounds , then the original price is pounds
 (a) 200 (b) 220 (c) **240** (d) 260
- 7 $\{1, 2, 3\} \dots \emptyset$
 (a) $\in$ (b) **$\notin$** (c) $-1 - x$ (d) $1 - x$
- 8 If $\{x, 3, 4\} = \{y, 2, 3\}$, then $x + y$
 (a) 4 (b) 5 (c) **6** (d) 7
- 9 The result of $(-5) \times (-3) + (-4)$ is :
 (a) -19 (b) -11 (c) **11** (d) 19

Question 2 : Answer the following questions :

- ① If $\frac{x-2}{60} = \frac{5}{15}$, find the value of $2x$

$$\frac{x-2}{60} = \frac{5}{15} \Rightarrow x-2 = \frac{5 \times 60}{15} = 20$$

$$x-2 = 20$$

$$x = 22$$

$$2x = 44$$

- ② If $\frac{x}{4} = 0.2$ find the value of x

$$\frac{x}{4} = 0.2$$

$$x = 0.2 \times 4 = 0.8$$

- ③ Find in its simplest form the value of $(\frac{3}{11} + \frac{1}{11}) \div \frac{4}{33}$

$$(\frac{3}{11} + \frac{1}{11}) \div \frac{4}{33}$$

$$\Rightarrow \frac{4}{11} \div \frac{4}{33} \Rightarrow \frac{4}{11} \times \frac{33}{4} = \frac{33}{11} = 3$$

- ④ Simplify : $5(a - 2b) + 3(4a + b)$ in its simplest form

$$5a - 10b + 12a + 3b$$

$$= 17a - 7b$$

- ⑤ If $A = \{9, 10, 8\}$, $B = \{4, 9, 7\}$, $C = \{1, 9\}$, find :

1) $A \cap B \cap C$

2) $A \cup (B \cap C)$

1) $\{9\}$

2) $\{8, 9, 10\}$

- ⑥ If the discount rate is 20 % on any inside a clothing store , what is the purchase price of pants that cost 500 pounds before the discount ?

$$500 \times \frac{20}{100} = 100$$

$$\text{After discount} = 500 - 100 = 400$$

- 7 If the price of the car tire is 3500 pounds , what would be the selling price of the tire after adding a tax rate of 10% ?

$$\text{tax} = 3500 \times \frac{10}{100} = 350$$

$$\text{After tax} = 3500 + 350 = 3850$$

model (2)

Question 1 : Choose the correct answer :

- 1 If $\frac{3}{2} = \frac{9}{b+1}$,then $\frac{1}{5}b = \dots$
- (a) 5 (b) 10 (c) 25 (d) 1
- 2 Which of the following represents proportion?
- (a) $\frac{5}{3} = \frac{3}{5}$ (b) $\frac{4}{7} = \frac{8}{14}$ (c) $\frac{5}{6} = \frac{10}{3}$ (d) $\frac{2}{3} = \frac{6}{4}$
- 3 If the quantities 3, m, 15, 10 are proportional then m=...
- (a) 3 (b) 6 (c) 4 (d) 2
- 4 If a scale drawing >1 , then it represents...
- (a) Magnification (b) Minimization (c) Equality (d) Other side
- 5 An amount of 1600 pounds was divided between two people in ratio 3:5 so the smaller share = ... pounds
- (a) 200 (b) 600 (c) 1000 (d) 800
- 6 If the price of a blender increase from 700 LE to 840 L.E. so the rate of increases is
- (a) 40% (b) 15% (c) 18% (d) 20%
- 7 $\{3\} \dots \{6, 2, 33\}$
- (a) $\in$ (b) $\notin$ (c) $\subset$ (d) $\not\subset$
- 8 Which of the following is a proper subset of the set $X = \{1, 3, 2, 5, 4\}$
- (a) $\{3,5,9\}$ (b) $\{1,5,6\}$ (c) $\{1,4,2\}$ (d) $\emptyset$
- 9 The additive inverse of the number $|-3|$ is ...
- (a) 4 (b) -3 (c) 3 (d) 5

Question 2 : Answer the following questions :

- ① In a factory, 10 workers produce 300 pieces of cloth. How many workers needed to produce 630 pieces?

Answer:

$$\frac{10}{300} = \frac{X}{630}$$

$$X = \frac{10 \times 630}{300} = 21 \text{ workers}$$

- ② Write all the subsets from the set {1, 8}

Answer:

$$2^n = 2^2 = 4$$

$$= \{1\}, \{8\}, \{1, 8\}, \emptyset$$

- ③ If $a = 1$, $b = 7$, $c = -3$ find in simplest form the value of the expression $(5a+b) \div c$

Answer:

$$(5 \times 1 + 7) \div (-3) = 12 \div (-3) = -4$$

- ④ Find in its simplest form the value of

$$\left(\frac{5}{7} + \frac{1}{7}\right) \div \frac{12}{14}$$

Answer:

$$\frac{6}{7} \div \frac{12}{14} = \frac{6}{7} \div \frac{6}{7} = 1$$

- ⑤ A magnified image of a microscope insect was taken if its length in the image is 12 cm and its real length is 3mm find the scale of the drawing

$$L.D = 12 \text{ cm} = 120 \text{ mm}$$

$$\text{Scale drawing} = \frac{L.D}{L.R} = \frac{120}{3} = \frac{40}{1}$$

- ⑥ If $\frac{X-2}{6} = \frac{3}{18}$, Find the value of $3X$

$$18(X-2) = 3 \times 6$$

$$18(X-2) = 18$$

$$X-2 = 1$$

$$X = 1 + 2 = 3$$

$$3X = 3 \times 3 = 9$$

$$\div 18$$

- 7 If $A = \{2, 4, 6\}$, $B = \{4, 6, 8\}$
Find $A \cap B$ and $A \cup B$

$$A \cap B = \{4, 6\}$$

$$A \cup B = \{2, 4, 6, 8\}$$

model (3)

Question 1 : Choose the correct answer :

- 1 If $x = |-4|$, $y = -1$, then $xy = \dots$
- (a) 4 (b) 3 (c) -4 (d) -3
- 2 The result of subtracting $\frac{3}{5}$ from $\frac{7}{10} = \dots\dots$
- (a) $\frac{4}{5}$ (b) $\frac{1}{5}$ (c) $\frac{1}{10}$ (d) $-\frac{4}{5}$
- 3 The algebraic term $-5X$ exceeds the algebraic term $-11X$ by
- (a) $-16X$ (b) 6X (c) $-6X$ (d) $16X$
- 4 If $A = \{7, 8, 0\}$, then the number of all subsets of A is
- (a) 2 (b) 3 (c) 8 (d) 9
- 5 If the scale drawing < 1 then that represents
- (a) reduction (b) magnification (c) equality (d) other wise
- 6 $5 - (-3)$
- (a) 8 (b) -8 (c) 2 (d) -2
- 7 The mathematical expression which expresses Hazem age after 10 years, if his age now is X years old is
- (a) X + 10 (b) $X - 10$ (c) $10X$ (d) X
- 8 The additive invers of $|-3|$ is
- (a) 3 (b) -3 (c) 0 (d) $\frac{1}{3}$

9 Which of the following doesn't equal $4a$?

(a) $a + 3a$

(b) $a + a + a + a$

(c) $2a + 2a$

(d) $4 + a$

Question 2 : Answer the following questions :

1 If the real length is 90 meters and the scale drawing is $1 : 10,000$, what is the length in drawing in centimeters ?

Solution :

$$\text{scale drawing} = \frac{\text{length in drawing}}{\text{real length}}$$

$$\frac{1}{10000} = \frac{\text{length in drawing}}{90 \times 100}$$

$$\text{length in drawing} = \frac{90 \times 100}{10,000} = 0.9 \text{ cm}$$

2 The algebraic expression: $5X + 3y - 5Xy - 7$ have 4 terms write:

d) Constant term

e) Coefficient of term Xy

f) The variable which coefficient is 3

Solution:

a) $-7 \rightarrow \text{constant term}$

b) $-5 \rightarrow \text{coefficient of } Xy$

c) $y \rightarrow \text{is the variable of coefficient 3}$

3 Find all proper subsets of $\{2, 3, 5\}$.

Solution :

$$\{2\}, \{3\}, \{5\}, \{2, 3\}, \{2, 5\}, \{3, 5\}$$

4 Add the expressions : $3a - 2b$ and $2a + 5b$ then find the numerical

Values of the result when $a = 2$, $b = 1$

Solution :

$$3a - 2b$$

+

$$2a + 5b$$

$$5a + 3b$$

The value when $a = 2$, $b = 1$

$$5a + 3b = 5 \times 2 + 3 \times 1 = 10 + 3 = 13$$

5

If $A = \{2, 4, 6\}$, $B = \{4, 6, 8\}$ find : $A \cap B$ and $A \cup B$

Solution :

$$A \cap B = \{4, 6\}$$

$$A \cup B = \{2, 4, 6, 8\}$$

6

If $\frac{x-2}{6} = \frac{3}{18}$, find the value of $3X$

Solution :

$$X - 2 = \frac{3 \times 6}{18} = \frac{18}{18} = 1$$

$$x - 2 = 1$$

$$x = 1 + 2 = 3$$

$$x = 3$$

$$\text{then } 3x = 3 \times 3 = 9$$

$$3x = 9$$

7

Subtract :

$$2x - 3y + 5$$

—

$$-x + 3y - 3$$

... ..

Solution :

$$3x - 6y + 8$$

model (4)

Question 1 : Choose the correct answer :

1

The mathematical expression which expresses that subtract (-2) from X

(a)

$$x - 2$$

(b)

$$2 - x$$

(c)

$$-2 - x$$

(d)

$$x + 2$$

2

The fourth proportional for the number 7, 5 and 14 is

(a)

$$10$$

(b)

$$20$$

(c)

$$49$$

(d)

$$35$$

- 3 Which of the following is equal to $5a$?
- (a) $3+2a$ (b) $2+3a$ (c) $2a+3a$ (d) $5+a$
- 4 If $\{4, 3\} \cap \{x, 1, 2\} = \{3\}$, then $x = \dots$
- (a) 2 (b) 5 (c) 3 (d) 4
- 5 $5a + (-3a) = \dots\dots\dots$
- (a) $8a$ (b) $2a$ (c) $-2a$ (d) $-8a$
- 6 The result of $(-5) \times (-3) + (-4)$ is
- (a) -19 (b) -11 (c) 11 (d) 19
- 7 If the ratio between two number is $3:2$ and the difference between them is 10 , then two numbers are
- (a) 5, 15 (b) 20, 30 (c) 8, 18 (d) 14, 24
- 8 Which of the following products has a negative sign?
- (a) $-3 \times (-9)$ (b) $(-2) \times 5$ (c) $0 \times (-5)$ (d) $-1 \times (-1)$
- 9 $x + x + x = \dots\dots\dots$
- (a) $3x^2$ (b) x^3 (c) $3+x$ (d) $3x$

Question 2 : Answer the following questions :

- 1 Use the addition properties in Z to find the result of: $(-10) + 2 + (-8) + 6$

Solution:

$$-10 - 8 + 2 + 6 =$$

$$-18 + 8 = -10$$

$$s.s = \{-10\}$$

2

If the price of a dress is 810 pounds after the discount , then if the discount rate is 10% of the original price , calculate the price of the dress before the discount ?

Solution:

befor : discount : after

100% : 10 % : 90

? : : 810

$$\text{Price before discount} = \frac{810 \times 100}{90} = 900 \text{ pounds}$$

3

If the real distance between Cairo and Damietta is 200 km and the distance between them on the map is 5 cm , find the map's scale drawing.

Solution :

Distance on map = 5 cm

Real distance = 200 km

(Note) 1 km = 100,000 cm

$$\text{scale drawing} = \frac{\text{distance on map}}{\text{real length}}$$

$$\text{scale drawing} = \frac{5}{200 \times 100,000} = \frac{1}{4,000,000}$$

1 : 4,000,000

4

Find the solution set of $2x - 7 = -6$ in Q

Solution :

$$2x = -6 + 7 = 1$$

$$x = \frac{1}{2}, \text{ s.s} = \left\{ \frac{1}{2} \right\}$$

5

Two integer numbers their product is (-25) and their sum is zero . what are the tow numbers ?

Solution :

The two number are 5 and -5

- 6 Find in its simplest form the value of : $\left(\frac{3}{11} + \frac{1}{11}\right) \div \frac{4}{33}$

Solution :

$$\left(\frac{3}{11} + \frac{1}{11}\right) \div \frac{4}{33} = \frac{4}{11} \div \frac{4}{33} = \frac{4}{11} \times \frac{33}{4} = 3$$

- 7 If $X = \{2, 4\}$, $y = \{4, 6\}$, then find $X \cap y$

Solution :

$$X \cap y = \{4\}$$

model (5)

Question 1 : Choose the correct answer :

- 1 $|-5| + \dots = 0$
 (a) ☒ -5 (b) 5 (c) 0 (d) 1
- 2 If $A = \{2, 5, 8\}$, which of the following is correct ?
 (a) $\{2\} \in A$ (b) $\{2\} \notin A$ (c) ☒ $\{5\} \subset A$ (d) $\{8, 5\} \not\subset A$
- 3 If $A = -2$, $B = 3$ then the value of $(A + B) - (A \times B)$ is :
 (a) ☒ 7 (b) -7 (c) 1 (d) -1
- 4 Which of the following is proper subset of the $A = \{1, 3, 2, 5, 4\}$
 (a) $\{3, 5, 9\}$ (b) $\{1, 5, 6\}$ (c) ☒ $\{1, 4, 2\}$ (d) $\emptyset$
- 5 The number of actual proper of the set $\{2, 5, 9\}$
 (a) 3 (b) ☒ 6 (c) 8 (d) 5
- 6 Which of the following sums has a positive sign ?
 (a) $19 + (-26)$ (b) $-35 + 17$ (c) $-25 + (-12)$ (d) ☒ $40 + (-18)$
- 7 The third term in $\frac{3.5}{7} = \frac{?}{12}$ is
 (a) 3 (b) ☒ 6 (c) 7 (d) 12

- 8 The solution set of the equation $4x = -12$ in N is
- (a) $\{-3\}$ (b) $\{3\}$ (c) $\emptyset$ (d) $\{0\}$
- 9 If the length in a drawing is 2 cm and the real length is 6 meter then the drawing scale is
- (a) 1 : 3 (b) 1 : 300 (c) 1: 3,000 (d) 1 : 30

Question 2 : Answer the following questions :

- 1 In a factory , 10 workers produce 300 pieces of cloth . how many workers produce 630 pieces ?

Solution :

Workers : pieces of cloth

10 : 300

? x : 630

$$\text{Number of worker} = \frac{630 \times 10}{300} = 21 \text{ worker}$$

- 2 A meal costs 180 L.E and 15 % profit is added to the cost of the meal , what is the selling price of the meal ?

Solution :

Before : profit : after

100 : 15 : 115

180 : : x?

$$\text{The price of the meal after adding profit} = \frac{180 \times 115}{100} = 207 \text{ L.E}$$

- 3 If $A = \{1, 7, 9\}$, $B = \{4, 2, 7\}$ and $C = \{1, 7\}$.

Find :

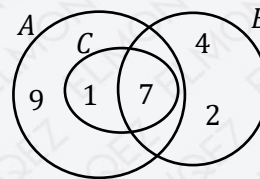
1) $A \cap B \cap C$

2) $A \cup B \cup C$

Solution:

$$A \cap B \cap C = \{7\}$$

$$A \cup B \cup C = \{1, 7, 9, 4, 2\}$$



4

If $\{6, 3, a, 7\} = \{3, 5, b, 6\}$ what is the value of $a + b$?

Solution :

$$a = 5 \quad b = 7$$

$$a + b = 5 + 7 = 12$$

5

If the number of students in a school is 650 , and the ratio between the number of boys and girls is $6 : 7$, calculate the excess number of girls over the number of boys ?

Solution :

Boys : girls : sum

$$6 : 7 : 13$$

$$? : ? : 650$$

$$\text{Number of boys} = \frac{650 \times 6}{13} = 300 \text{ boys}$$

$$\text{Number of girls} = \frac{650 \times 7}{13} = 350 \text{ girls}$$

$$\text{The excess number of girls} = 350 - 300 = 50$$

6

Write in listing method the set A , where A is a set even natural numbers less than 15

Solution :

$$A = \{0, 2, 4, 6, 8, 10, 12, 14\}$$

7

Find the value of expression $4x + 3x - 5x$ when $x=2$

Solution :

$$4x + 3x - 5x = 4 \times 2 + 3 \times 2 - 5 \times 2$$

$$= 2(4 + 3 - 5)$$

$$= 2 \times 2 = 4$$

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من كي جي 1 حتى تالته اعدادي

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ملفات حصرية لن تجدها في أي مكان

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