إهداء
من سلسلة كتب المعاصر
غير مخصصة للبيع

EL-MOASSER

October Tests

From lesson (1) - uint (1) to lesson (1) - uint (2)



1ST Prep
FIRST TERM
2027

Maths

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October Test

Model 1

Total Mark 15

First group **Choose the correct answer from the given ones :**

(1) If 4 , 7 , x , 35 are proportional quantities , then x = _____ *(1 $\frac{1}{2}$ marks)*

A. 10 **B.** 5 **C.** 70 **D.** 20

(2) If the drawing length is 3 cm and the real length is 18 m. ,
then the scale drawing = _____ *(1 $\frac{1}{2}$ marks)*

A. 1 : 60 **B.** 1 : 600 **C.** 1 : 6 **D.** 1 : 6,000

(3) What is the multiplicative inverse of the number $-2\frac{1}{4}$? *(1 $\frac{1}{2}$ marks)*

A. $-\frac{9}{4}$ **B.** $\frac{9}{4}$ **C.** $\frac{4}{9}$ **D.** $-\frac{4}{9}$

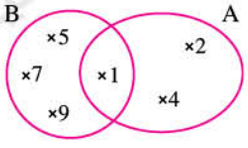
Second group **Answer the following questions :**

(4) If a jacket costs 498 LE after a 17 % discount rate of its original price, find the original price. *(2 $\frac{1}{2}$ marks)*

(5) Three persons shared 7,200 LE in ratio 3 : 4 : 5 calculate the share of each one. *(2 $\frac{1}{2}$ marks)*

(6) **In the opposite figure :** *(2 $\frac{1}{2}$ marks)*

Find : 1 $A \cap B$ 2 $A \cup B$



(7) If $x = \frac{-2}{7}$, $y = \frac{8}{7}$, find the value of $4x + y$ in the simplest form. *(3 marks)*

Model 2

Total Mark 15

First group Choose the correct answer from the given ones :

(1) If $\frac{3}{5} = \frac{9}{x+1}$, then $x =$ ..... *(1 $\frac{1}{2}$ marks)*

A. 15 **B.** 14 **C.** 10 **D.** 20

(2) If the scale drawing of a map is 0 30 60 90 120 km and the distance between two cities on a map is 3 cm , then the real distance between them equals ..... *(1 $\frac{1}{2}$ marks)*

A. 30 km **B.** 1,200,000 cm **C.** 90 km **D.** 90,000 cm

(3) What is the additive identity in $\mathbb{Z}$? *(1 $\frac{1}{2}$ marks)*

A. zero **B.** 1 **C.** -1 **D.** $\frac{1}{2}$

Second group Answer the following questions :

(4) The ratio between two numbers is 2 : 5 If the smaller number is 48 , then what is the larger number ? *(2 $\frac{1}{2}$ marks)*

(5) Mariam wants to buy a vacuum cleaner for 6,800 LE. If the discount rate is 12 % find what Mariam will pay to buy the vacuum cleaner. *(2 $\frac{1}{2}$ marks)*

(6) Using the distributive propery to find the value of : $-\frac{3}{7} \times 8 + 5 \times \left(-\frac{3}{7}\right) + \left(-\frac{3}{7}\right)$ *(2 $\frac{1}{2}$ marks)*

(7) If $X = \{1 , 3 , 5 , 7\}$, $Y = \{4 , 6 , 9 , 2\}$

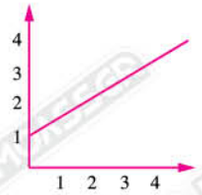
Find : 1 $X \cap Y$ 2 $X \cup Y$ *(3 marks)*

Model 3

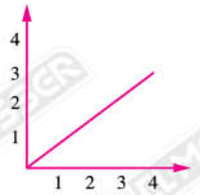
Total Mark 15

First group Choose the correct answer from the given ones :

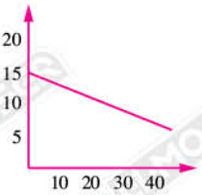
(1) Which of the following graphs represents a proportion ? *(1 $\frac{1}{2}$ marks)*



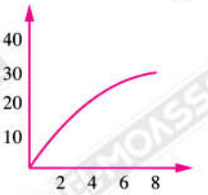
A.



B.



C.



D.

(2) If $X - 1 \in \{6\}$, then $X =$ ..... *(1 $\frac{1}{2}$ marks)*

A. 6 B. 5 C. 1 D. 7

(3) The result of subtracting : $\frac{2}{5}$ from $\frac{1}{4}$ equals ..... *(1 $\frac{1}{2}$ marks)*

A. $\frac{3}{20}$ B. $\frac{13}{20}$ C. $-\frac{3}{20}$ D. $\frac{3}{9}$

Second group Answer the following questions :

(4) Three persons invested in a business.
The first invested 50,000 LE , the second invested 40,000 LE and the third invested 30,000 LE At the end of the year the net profit was 30,000 LE
Calculate the share of each person of the profit. *(2 $\frac{1}{2}$ marks)*

(5) If a car tyre costs 3,200 LE , what is the cost of the tyre after adding 10 % tax rate ? *(2 $\frac{1}{2}$ marks)*

(6) If $\{X + y , 9\} = \{13 , y\}$, then find the value of X and y *(2 $\frac{1}{2}$ marks)*

(7) A picture of a tower drawn to a scale of 1 : 100 If the height of the tower in the picture is 2.5 cm. , then find the real height of the tower. *(3 marks)*

Answers of October Tests

Model 1

First group

(1) D (2) B (3) D

Second group

(4) Original price : Discount rate : Price after discount

100 % : 17 % : 83 %

? : : 498

The original price $= \frac{498 \times 100}{83} = 600$ LE

(5) 1st : 2nd : 3rd : sum

3 : 4 : 5 : 12

? : ? : ? : 7,200

Share of the first $= \frac{3 \times 7,200}{12} = 1,800$ LE

Share of the second $= \frac{4 \times 7,200}{12} = 2,400$ LE

Share of the third $= \frac{5 \times 7,200}{12} = 3,000$ LE

(6) 1 $A \cap B = \{1\}$

2 $A \cup B = \{1, 2, 4, 5, 7, 9\}$

(7) $4x + y = 4 \times \left(\frac{-2}{7}\right) + \frac{8}{7} = \frac{-8}{7} + \frac{8}{7} = 0$

Model 2

First group

(1) B (2) C (3) A

Second group

(4) 1st : 2nd

2 : 5

48 : ?

Larger number $= \frac{5 \times 48}{2} = 120$

(5) Original price : Discount rate : Price after discount

100 % : 12 % : 88 %

6,800 : : ?

Price after discount $= \frac{88 \times 6,800}{100} = 5,984$ LE

(6) $\frac{-3}{7} \times (8 + 5 + 1) = \frac{-3}{7} \times 14 = -6$

(7) 1 $X \cap Y = \varnothing$

2 $X \cup Y = \{1, 2, 3, 4, 5, 6, 7, 9\}$

Model 3

First group

(1) B (2) D (3) C

Second group

(4) First : Second : Third : Sum

50,000 : 40,000 : 30,000 :

5 : 4 : 3 : 12

? : ? : ? : 30,000

Share of the first $= \frac{30,000 \times 5}{12} = 12,500$ LE

Share of the second $= \frac{30,000 \times 4}{12} = 10,000$ LE

Share of the third $= \frac{30,000 \times 3}{12} = 7,500$ LE

(5) Value of tax $= 3,200 \times \frac{10}{100} = 320$ LE

after tax $= 3,200 + 320 = 3,520$ LE

(6) $y = 9$, $x + y = 13$

$x + 9 = 13$

$x = 13 - 9 = 4$

(7) Scale drawing $= \frac{\text{length in drawing}}{\text{real length}}$

$\frac{1}{100} = \frac{2.5 \text{ cm.}}{\text{real length}}$

Real length $= \frac{2.5 \times 100}{1} = 250$ cm $= 2.5$ m