

THE REAL PRIVATE TEACHER GUIDES MTC PLE – MOCK 2022

- $$\begin{array}{r} 5 \\ - 3 \\ \hline 2 \end{array}$$
- 8,049** = Eight thousand forty nine.
- $W = \{1, 4, 9\}$
 $n(W) = 3$
- $$\begin{array}{r} 2 - 1 + 1 \\ 3 \quad 2 \quad 4 \\ 2 + 1 - 1 \\ 3 \quad 4 \quad 2 \\ 8 + 3 - 6 \\ 12 \\ 11 - 6 \\ 12 \\ 5 \\ 12 \end{array}$$
- $$\begin{array}{l} 3x + 105^0 = 180^0 \\ 3x + 105^0 - 105^0 = 180^0 - 105^0 \\ 3x = 75^0 \\ \frac{3x}{3} = \frac{75^0}{3} \\ x = 25^0 \end{array}$$
- $$\begin{array}{l} 3(x - y) - (x + y) \\ 3x - 3y - x - y \\ 3x - x - 3y - y \\ 2x - 4y \end{array}$$
- $$\begin{array}{l} 216, 125, 64, 27, 8 \\ 6^3, 5^3, 4^3, 3^3, 2^3 \end{array}$$
- $$\begin{array}{l} -18 - 10 \\ -18 - (-10) \\ -18 + 10 \\ -8 \end{array}$$
- $$\begin{array}{l} 12 : 44pm \\ +00 : 00hrs \\ \hline 14 : 44hrs \end{array}$$
- $$\begin{array}{l} 11. 3^4 \div 3^2 \\ 3^{4-2} \\ 3^2 \\ 3 \times 3 = 9 \end{array}$$
- $$\begin{array}{l} 13. \text{ If } P = -3, K = 2 \\ \text{Value of } 2p + 2k \\ 2(-3) + 2(2) \\ -6 + 4 \\ -2 \end{array}$$
- $$\begin{array}{l} 15. 1km = 1000m \\ 1hr = 3600sec \\ \frac{D}{T} = \text{speed} = \frac{72 \times 1000m}{3600sec} \\ = \frac{72000m}{36} = 20m/sec \end{array}$$
- $$\begin{array}{l} 17. 1.44 = \frac{144}{100} \\ \sqrt{144} = \sqrt{12 \times 12} = 12 \\ \sqrt{100} = \sqrt{10 \times 10} = 10 \\ \frac{12}{10} = 1.2 \end{array}$$
- $$\begin{array}{l} 18. \frac{1}{2}h(a + b) = A \\ \frac{1}{2}h(12cm + 13cm) = 125cm^2 \\ = h(25cm) = 125cm^2 \\ \frac{125cm^2}{25cm} = \frac{125cm^2 \times 2}{25cm} \\ h = \frac{5cm \times cm \times 2}{cm} \\ h = 5cm \times 2 \quad h = 10cm \end{array}$$
- Dice 1, 2, 3, 4, 5 and 6
Triangular numbers are 1, 3 and 6
 $\text{Prob} = \frac{n(DC)}{n(TC)} = \frac{3}{6}$

SECTION B

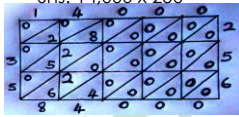
- 21a.)
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- b). $2h + 3h + h - 5 + h + 3 + 2 = 31$
 $(2h + h + h) + 3 - 5 + 5 = 31$
 $4h + 3 = 31$
 $4h + 3 - 3 = 31 - 3$
 $4h = 28$
 $\frac{4h}{4} = \frac{28}{4} \quad h = 7$

- 22.a). Boys to girls

$$\begin{array}{l} 3 : 5 \\ \text{Total ratio} = 3 + 5 \\ = 8 \end{array}$$

- 5 parts = 60 pupils
1 part = $(60 \div 5)$ pupils
1 part = 12 pupils
8 parts = 96 pupils
96 pupils were in class.



They paid **Shs.3,584,000**

- b). $256 \div 32 = 8$ buses.

24a). Let Odiambo's age now be k .

Time	Odiambo	Olupot
Now	K	K + 18
6 year's time	K + 6	K + 18 + 6
2 x Odiambo's age = Olupot's age		
$2(k + 6) = k + 18 + 6$		
$2k + 12 = k + 24$		
$2k + 12 - 12 = k + 24 - 12$		
$2k = k + 12$		
$2k - k = k + 12 - k$		
$k = 12$		

Odiambo now is 12 years old.

- b). Olupot will be $k + 18 + 12$

$$12 + 18 + 12 = 42 \text{ years.}$$

25.

Soda Shs.1,000 x 5 = Shs.5,000

Meat Shs.28,000 x 2 = 56,000

Salt 1kg = 1000gm

$\frac{1}{2}$ kg = 500gm

1 x Shs.1,200 = Shs.600

2

Rice = Shs.12,000

Total Shs.5,000 + Shs.56,000 + Shs.12,000 + Shs.600

= Shs.73,600

Amount Shs.73,600

+ Shs.12,400

= Shs.86,000

26a). $y + 20^0 + 90^0 = 180^0$

$y + 110^0 = 180^0$

$y + 110^0 - 110^0 = 180^0 - 110^0$

$y = 70^0$

b). $m + 60^0 = 180^0$

$m + 60^0 - 60^0 = 180^0 - 60^0$

$m = 120^0$

c). Let the complement of 46^0 be m

$m + 46^0 = 90^0$

$m + 46^0 - 46^0 = 90^0 - 46^0$

$m = 44^0$

27. Let the first number be m

1st	2nd	3rd	4th	Total
$m + 2$	$m + 4$	$m + 6$	$m + 8$	96

$m + 12 + m + 4 + m + 6 + m + 8 = 96$

$(m + m + m + m) + (2 + 4 + 6 + 8) = 96$

$4m + 20 = 96$

$4m + 20 - 20 = 96 - 20$

$4m = 76$

$\frac{4m}{4} = \frac{76}{4}$

$m = 19$

1st = $m = 19$

2nd = $m + 2 = 19 + 2 = 21$

3rd = $m + 4 = 19 + 4 = 23$

4th = $m + 6 = 19 + 6 = 25$

The numbers are 19, 21, 23 and 25

28a). Us dollar 1 costs UgShs.3,800

Us dollar 600 cost UgShs.3,800 x 600

Us dollar 600 cost UgShs.2,280,000

b). UgShs.627,000

UgShs.3800

= Usdollars.165.

29. Area of the frame.

Area = L x W

Area = 100cm x 80 cm

Area = 8000cm²

Length of the photo

100cm - (6cm + 4cm)

100cm - 10cm

= 90cm

Width of the photo

80cm - (3cm + 2cm)

80cm - 5cm

= 75cm

Area covered by the photo

Area = 90cm x 75cm

Area = 6,750cm²

Area not covered by the photo

8,000cm²

- 6,750cm²

= 1,250cm²

MARKS	TALLY	FREQUENCY
65		4
70		4
85		4
50		2
60		4

b). $65 \times 6 + 70 \times 3 + 85 \times 4 + 50 \times 2 + 60 \times 5$

$6 + 3 + 4 + 2 + 5$

$390 + 210 + 340 + 100 + 300 = 1340$

$\frac{1340}{20} = 67$

31a. value of k

$(3k - 10)cm = (k + 2)cm$

$3k - 10 + 10 = k + 2 + 10$

$3k = k + 12$

$3k - k = 12$

$2k = 12$

$\frac{2k}{2} = \frac{12}{2}$

$k = 6$

b). Each side = $(k + 2)cm$

$= (6 + 2)cm$

$= 8cm$

Area = side x side

$8cm \times 8cm$

$= 64cm^2$

c) Perimeter = 4 x side

$= 4 \times 8cm$

$= 32cm$

32. Total piece of land

$5 + 10 + 20 + 25 = 60$

60 parts = 360⁰

1 part = 360⁰ \div 60

1 part = 6⁰

Food crops = 5 x 6⁰ = 30⁰

Cash crops = 10 x 6⁰ = 60⁰

Grazing = 20 x 6⁰ = 120⁰

Hiring = 25 x 6⁰ = 150⁰

