THE REAL PRIVATE TEACHER GUIDES MTC NEXT TO PLE –6 2022

1. 1 4 7
+5 3
2 0 0

2. xc =90
Iv =+ 4
Xciv =94

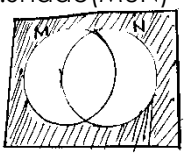
3.9x+5y-4y-2y
9x -4x+5y-2y
5x+3y

4. 4 6 3 2
3x10=30
4x1000
4 0 0 0
+ 3 0
4 0 3 0

5.-8- 3
-8-(3)
-8+3
-5

6. 0,2,10,17,18, 31, 48
0+2 = 2
2+3 =5
5+5 =10
5+7 =12
12+13 =31
31+17 =48

7.Shade(MuN)'



8.144 pencils cost sh72,000
1 pencil costs sh 72,000
144
1 pencil costs shs 500
8 pencils cost shs 500x8
8 pencils cost sh 4000

9.(0.5x25)+(0.5x75)
0.5(25+75)
5 x10
10
5x10
=50

10.sample space.
(1,2,3,4,5,6)
Prime numbers
(2,3,5)
Probability=$^3/_6$

11.102_{three} =
(1x3)+(0x3)+(2x3)
=1x3x3 +0x3+2x1
= 9 + 0 + 2
= 11_{ten}

12. 98000=9.8x10

13. boys : girls
2 : 5
Total ratio =2 + 5
= 7
7parts =126pupils
7parts =(126÷7)pupils
7parts =18pupils
5parts =5x18pupils
5parts =90pupils
90pupils were gils
90 girls were in class

14. 8 :40am
+ :50min
9 :30am

15. 50kg ÷ $^1/_2$ kg packet
50 x 2 packets
=100packets

16. L x w = area
2y x y =72cm^2
2y^2 =72 cm^2
2y^2 =72cm^2
2 2
√y2 =√36cm^2
Y =6cm

17.
2 | 72
2 | 36
2 | 18
3 | 9
3 | 3
| 1

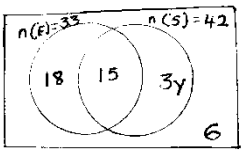
72 =2x2x2x3x3
= 2^3 x3^2

18.let the second number be k
Kx18 = 36 x 6
18k = 36 x 6
18k =36 x 6
18 18
K =2 x 6
K =12

19. ky5041002
- ky5040903
0000099
99+1 =100notes
Shs 20,000x100
Shs 2,000,000

20.1 pic represents 15eggs
6 pics represents 6x15eggs
6 pics represent 90eggs
30 eggs need one tray
90 eggs need(90÷30) trays
90 eggs need 3 trays

21.n(∑) =65



Value of y
3y +15 =42
3y +15-15 =42-15
3y = 27
3y =27
3 3
Y =9
n(E) =3y+6
=3x3+6
=9+6
=13

22.a,Number of pupils
3 + 4+4 +2+2
=15pupils

b,
40x3+55x4+75x4+60x2+85x2
15
120+220+300+120+170
15
930
15
=62

23a, 0.72x1.8
0.9x2.4
72 x 18 ÷ 9 x 24
100 10 10 10
72^3 x 18^2 x 10 x 10
$10\,0$ $1\,0$ 9_1 24_1
3 x 2 x 1 x 1
10 x 1 x 1 x 1
6
10 = 0.6

b). $^4/_5 + {}^1/_3 \times {}^3/_5 - {}^1/_4$ of $^2/_3$
4 + 1 x 3 – 1 x 2
5 3 5 42 3
4 + 1 – 1
5 5 6
30 – 5
30
24^4 = 4
35_5 5

24.a) **Rice** 4 x Shs4,000 Shs16,000
Posho 3 x Shs4,000 Shs12,000
Banana Shs15,000
Onions
1kg = 1000g
500 x Shs2000
1000
500 x Shs2 = Shs1,000
Total
Shs16,000
Shs12,000
Shs15,000
+ Sh1,000
Shs44,000

b). **Amount paid.**
100% - 10% = 90%
90 x Shs44,000
100
90 x Shs440
Shs39,600

25a.) Let the first number be **w**

1st	2nd	3rd	Sum
w	W + 2	W + 4	36

w + w + 2 + w + 4 = 36
w + w + w + 2 + 4 = 36
3w + 6 = 36
3w + 6 – 6 = 36 – 6
3w = 30
3 3
W = 10

1st no	2nd no	3rd no
W = 10	w + 2	w + 4
	10 + 2 = 12	10+4=14

b). median
10, **12**, 14 median = 12

26. **Area of a square**
A = S x S
A = 14cm x 14cm
A = 196cm^2

Area of a circle
$A = \pi r^2$
A = $^{22^{11}}/_7$ x $^{14^2}/_2$cm x $^{14^7}/_2$cm
A = 11 x 2cm x 7cm
A = 154cm^2

Area of the shaded part.
196cm^2
- 154cm^2
42cm^2

27. **First drive**

D = S x T

D = 75km/hr x 2hrs

D = 75km x 2~~hrs~~ / ~~Hr~~

D = 75km x 2

D = 150km

Second drive

D = S x T

D = 40km/hr x 3hrs

D = 40km x 3~~hrs~~ / ~~Hr~~

D = 40km x 3

D = 120km

Av. Speed = $\frac{150km + 120km}{2hrs + 3hrs}$

$= \frac{270km}{5hrs}$

$= 54km/hr$

28a.)

1 day sells 25 bars

30 days sells 30 x 25 bars

30 days sells 750 bars.

b).

1 bar costs Shs8,000

750 bars cost Shs8,000 x 750

750 bars cost Shs6,000,000

She earns Shs6,000,000 per month.

29. **Value of P**

$2p + 20^0 = p + 30^0$

$2p + 20^0 - 20^0 = p + 30^0 - 20^0$

$2p = p + 10^0$

$2p - p = p - p + 10^0$

$P = 10^0$

Size of angle BAC

$180^0 - (2p + 20^0 + p + 30^0)$

$180^0 - (2 \times 10^0 + 20^0 + 10^0 + 30^0)$

$180^0 - (20^0 + 20^0 + 10^0 + 30^0)$

$180^0 - 80^0$

100^0

30.a) Let the son's age be **k**.

Time	Son	Musa	Total
Now	k	K+27	
6yrs ago	k-6	K+27-6	45

$k - 6 + k + 27 - 6 = 45$

$k + k\ 27 - 6 - 6 = 45$

$2k + 27 - 12 = 45$

$2k + 15 = 45$

$2k + 15 - 15 = 45 - 15$

$\frac{2k}{2} = \frac{30}{2}$

$K = 15$

Musa now is k + 27

= 15 + 27

= 42 years.

b). **Son's age 6 yrs ago**

k – 6

15 – 6 = 9years.

31.a) c = $^-$2, k = $^-$3 and p = 4

$\frac{K - c + p}{K}$

$\frac{- 3 - (-2) + 4}{-3}$

$\frac{-3 + 2 + 4}{-3}$

$\frac{-3 + 6}{-3}$

$\frac{3}{-3}$

-1

b). $4 - 2y \geq 16$

$4 - 4 - 2y \geq 16 - 4$

$- 2y \geq 12$

$\frac{- 2y}{-2} \leq \frac{12}{-2}$

$y \leq -6$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