Section A. (40 Marks)

1 Workout; 32 x 3

32
x 3
96

32 x 3 = 96

2 Write 14,001 in words.

ITH	TH	H	T	O
1	4	0	0	1

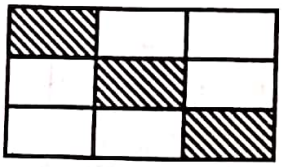
Fourteen thousand one

3 Simplify: 4p + 6m + 3p + 2m

4p + 3p + 6m + 2m

7p + 8m

4 What percentage of the diagram below is shaded?



$\frac{9}{9} - \frac{6}{9} = \frac{9-6}{9} = \frac{3}{9}$

$\frac{1}{3} \times 100\% \quad \frac{1}{3} \times 100\%$

$33\frac{1}{3}\%$

5 Mugisha harvested 164 bags of maize. Express the number of harvested bags of maize in Roman numerals.

100 = C
60 = LX
+ 4 = IV
164 = CLXIV = CLXIV bags

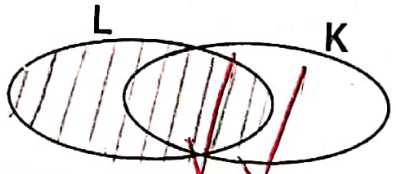
6 Simplify: -6 + -3

-6 + -3

--- + -- = ---

-6 + -3 = -9

7 Shade set L in the Venn diagram below.



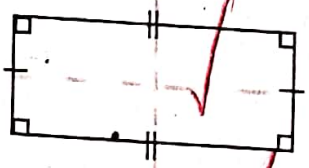
8 Convert 240 minutes to hours.

60 mins = 1hr
240 mins = 240 / 60
= 4hrs

9 If ☕ stands for 5 cups, how many cups are represented by; ☕☕☕☕ ?

If 1 picto = 5 cups
5 picto = (5 x 5) cups
25 cups

10 Show and write the number of lines of folding symmetry in the figure below.



2 lines of folding symmetry

11 Find the value of 4 tens.

4 tens = 4 x 10
= 40

12 How many $\frac{3}{4}$ litre cups can be got from 36 litres of cooking oil?

36l ÷ $\frac{3}{4}$ | 12 x 4 = 48

$36 \times \frac{4}{3}$ = 48

12×4 | 48 - $\frac{3}{4}$ litre cups.

13 Express 5km as metres.

k	H	D	M	d	c	m
1	0	0	0			

1km = 1000m

5km = (5 x 1000)m

= 5000m

14 Mwesigwa covered a certain distance in 3 hours at a speed of 90km/hr. Find the distance he covered.

D = S x T

= 90km x 3hrs / 1hr

= 270km

15 Subtract: $\frac{4}{5} - \frac{1}{5}$

$\frac{4}{5} - \frac{1}{5} = \frac{4-1}{5}$

$\frac{3}{5}$

16 Find the next two numbers in the sequence below:

28, 26, 24, 22, 20, 18

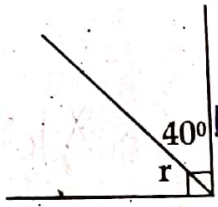
-2 -2 -2 -2 -2

17 Given that set Q = {whole numbers less than 10}. List down all the elements of set Q.

Q = {1, 2, 3, 4, 5, 6}

Q = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9}

18 Find the value of r in degrees.



r + 40% = 90

r + 40% - 40% = 90 - 40%

r = 50%

r = 50°

19 Workout (140 ÷ 14) + (50 ÷ 5)

(140 ÷ 14) + (50 ÷ 5)

10 + 10

20

20 Simplify; $1\frac{2}{3} \times \frac{2}{5}$

$\frac{1 \times 3 + 2}{3} = \frac{5}{3}$

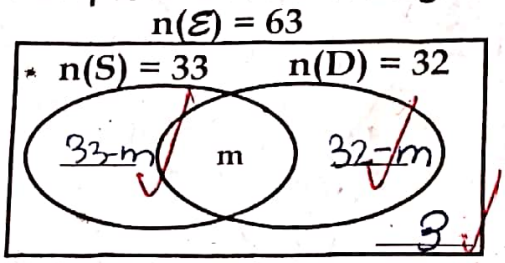
$\frac{5}{3} \times \frac{2}{5} = \frac{1 \times 2}{3 \times 1} = \frac{2}{3}$

$1\frac{2}{3} \times \frac{2}{5} = \frac{2}{3}$

Section B. (60 Marks)

21 In a group of 63 people, 33 like telling stories (S), 32 people like dancing (D) and "m" people like both telling stories and dancing while 3 people like neither of the two.

(a) Complete the Venn diagram below. *(03 marks)*



S - D	D - S
33 - m	32 - m

(b) How many people like both telling stories and dancing? *(03 marks)*

$m = (33 + 32 + 3) - 63$

$m = 68 - 63$

$m = 5$ pupils

22 Given the numeral **96745**;

(a) Write the above numeral in expanded form using exponents. *(02 marks)*

9 6 7 4 5

10^4 10^3 10^2 10^1 10^0

$(9 \times 10^4) + (6 \times 10^3) + (7 \times 10^2) + (4 \times 10^1) + (5 \times 10^0)$

(b) Find the difference between the place value of **6** and the value of **7** in the numeral above. *(03 marks)*

TTH	TH	H	T	O
9	6	7	4	5

$7 \times 100 = 700$

$1000 - 700 = 300$

(a) Workout: *(02 marks)*

$$\begin{array}{r} 2\ 2\ 4_{five} \\ +\ 1\ 0\ 3_{five} \\ \hline 3\ 3\ 2_{five} \end{array}$$

$4 + 3 = 7 = 5 + 2$

(b) Subtract: $310_{five} - 121_{five} = 134_{five}$ (02 marks)

24 (a) Simplify: $\frac{3}{5} + \frac{2}{3}$ (02 marks)

$\frac{3}{5} + \frac{2}{3} = \frac{9+10}{15} = \frac{19}{15} = 1\frac{4}{15}$

(b) Workout: $2\frac{1}{2} - \frac{3}{4}$ (02 marks)

$\frac{2\times2+1}{2} = \frac{4+1}{2} = \frac{5}{2}$

$\frac{5}{2} - \frac{3}{4} = \frac{10-3}{4} = \frac{7}{4} = 1\frac{3}{4}$

25 **Kemigisha went to the market and bought the following.**

2kg of sugar for sh.3500 perkg
500g of salt for sh 2000 a kg
3 loaves of bread for sh. 16500
3kg of meat for sh 12,000 each kg

meat: sh. 12,000 × 3 = sh. 36,000

Sugar: sh. 3500 × 2 = sh. 7000

Salt: 1/2 × sh. 2000 = sh. 1000

sh. 36000 + sh. 16500 + sh. 7000 + sh. 1000 = sh. 60500

(a) Calculate her total expenditure. (04 marks)

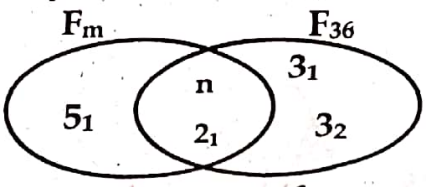
1000g = 1kg, 500g = 1/2 kg

(b) If she was given a change of sh 500, how much money did she have at first? (02 marks)

sh. 60,500 + sh 500 = sh 61,000

She had sh. 61,000 at first.

26 **Study the Venn diagram below and use it to answer the following.**



(a) Find the value of;

(i) n *(02 marks)*

$36 = n \times 2 \times 3 \times 3$ / $\frac{36}{18} = \frac{18n}{18}$ $n = 2$

(ii) m *(02 marks)*

$m = 2 \times 5 \times 2$

$m = 20$

(b) Calculate the LCM of F_m and F_{36}. *(02 marks)*

LCM $= 5 \times 3 \times 3 \times 2 \times 2$

$= 180$

27 (a) Change $\frac{1}{4}$ into a decimal fraction. *(02 marks)*

4 | 1.0 → 10 → 20 → 20

$\frac{1}{4} = 0.25$

(b) Arrange **0.01, 0.5, 0.03, 0.11** and **0.04** in descending order. *(03 marks)*

$\frac{1}{100} > \frac{5}{10} > \frac{3}{100} > \frac{11}{100} > \frac{4}{100}$

$\frac{1}{100} \times 100\% = 1\%$ | $\frac{5}{10} \times 100\% = 50\%$ | $\frac{3}{100} \times 100\% = 3\%$ | $\frac{11}{100} \times 100\% = 11\%$ | $\frac{4}{100} \times 100\% = 4\%$

0.5, 0.04, 0.5, 0.11, 0.04, and 0.03, 0.0

8 **Musa harvested the apples on different days as follows.**

Mon	Tue	Wed	Thur	Fri
15	20	16	15	14

Find;

(a) mode *(02 marks)*

14, (15, 15), 16, 20

Mode = 15

(b) median (02 marks)

14) 15) 15) 16) 20

median = 15

(c) mean (02 marks)

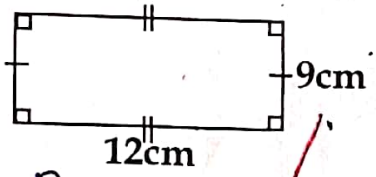
mean = sum of no / Total number of numbers

$m = \frac{14+15+15+16+20}{5}$

$m = \frac{80}{5}$

mean = 16

29 (a) Find the perimeter of the figure below. (02 marks)



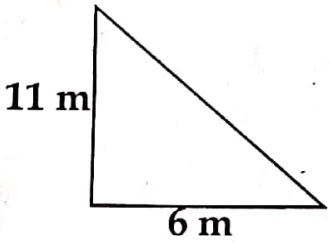
P = (L + W)2

= (12cm + 9cm)2

= 21cm x 2

= 42cm

(b) Find the area of the figure below. (02 marks)



$A = \frac{1}{2}bh$

$= \frac{1}{2} \times 6m \times 11m$

$= 3 \times 11m$

$= 33m^2$

30 (a) Increase sh 6000 in the ratio of 2:3. (02 marks)

$\frac{2}{3} \times 6000/= $

2000

4000/=

sh. 6000 + sh. 4000

sh. 10,000

(b) 4 men can do a piece of work in 16 days, how many men can do the same piece of work in 24 days. (02 marks)

4 men = 16 days

1 man = (16 ÷ 4) days

= 4 days

= 24 days

4 days

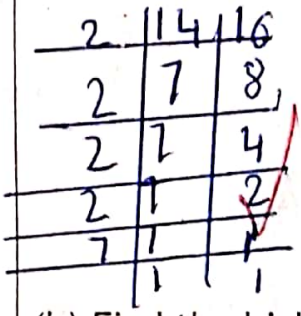
16 days = 4 men

1 day = 16/4

24 days = 24 x 4

= 96 men

31 (a) Find the least number of eggs that can be shared by 14 or 16 pupils leaving 5 as aremainder *(03 marks)*



2 | 14 | 16
2 | 7 | 8
2 | 7 | 4
2 | 7 | 2
7 | 1 | 1
1 | 1

2 x 2 x 2 x 2 x 7) + 5
(2 x 2 x 2 x 14) + 5
(2 x 2 x 28) + 5
112 + 5
117 eggs

(b) Find the highest number of children that can share 30 or 42 mangoes leaving no remainder. *(02 marks)*

2 | 30 | 42
3 | 15 | 21
5 | 5 | 7
7 | 1 | 7
1 | 1

2 x 3 x 5 x 7
6 x 35
210 children

32 Find the missing numbers in the box below.

(a) 14 - ☐ = 6 *(02 marks)*
let the no be n
14 - n = 6
14 + n
14 - ☐ = 6
14 - 6
= 8

(b) ☐ ÷ 16 = 5 *(02 marks)*
☐ ÷ 16 = 5
16 x 5
80

(c) 3 x ☐ = 24 *(01 mark)*
3 x ☐ = 24
24 ÷ 3
= 8