TR FRANCIS (0764782284)

Marking Guide

SECTION A: 40 MARKS

*Answer **all** the questions in this section.*

*Questions **1** to **20** carry **two** marks each.*

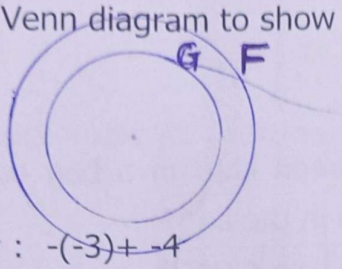
1. Work out 24÷4 using repeated subtraction.

24 - 4 = 20 | 12 - 4 = 8 | ∴ 24 ÷ 4 = 6

20 - 4 = 16 | 8 - 4 = 4

16 - 4 = 12 | 4 - 4 = 0

2. Draw a Venn diagram to show that girls (G) are females (F)



3. Simplify : -(-3)+ -4

3 + -4

3 + (-4)

3 - 4

-1

4. Write the number whose scientific notation is 3×10^{-3}?

3×10^{-3} | $3 \times \frac{1}{1000}$

$3 \times \frac{1}{10^3}$ | 0.003

5. Find the square of the next number in the sequence

84, 82, 79, 74, 67, 56 .....

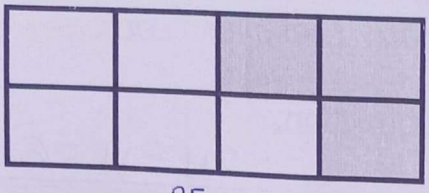
-2 -3 -5 -7 -11

6. Work out $\frac{2}{5} \div \frac{3}{4}$

$\frac{2}{5} \div \frac{3}{4}$

$\frac{2}{5} \times \frac{4}{3} = \frac{8}{15}$ 2

7. What percentage of the diagram is shaded?



$\frac{3}{8} \times \frac{25}{100}\%$

$\frac{75}{2}\%$

$37\frac{1}{2}\%$

8. The probability of picking a green card in a bag containing 6 blue cards is $\frac{3}{5}$. How many cards are in the bag?

Probability of picking blue cards

$\frac{5}{5} - \frac{3}{5} = \frac{2}{5}$

No of cards in the bag

$6 \div \frac{2}{5}$ 15 cards

$3\cancel{6} \times \frac{5}{\cancel{2}_1}$

9. Solve for p: (XIV) + p = (XX)

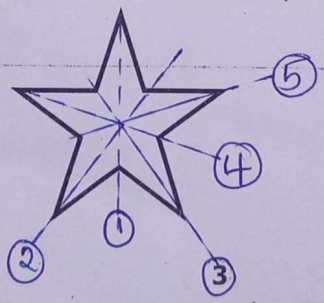
$14 + P = 20$

$14 - 14 + P = 20 - 14$

$P = 6$

$P = VI$

10. How many lines of folding symmetry does the figure below has?



5 lines of Folding symmetry

11. Find the value of ***t*** and ***q***

2	24	36
2	12	***t***
2	6	9
q	3	9
3	1	3
	1	1

$2 \times t = 36$

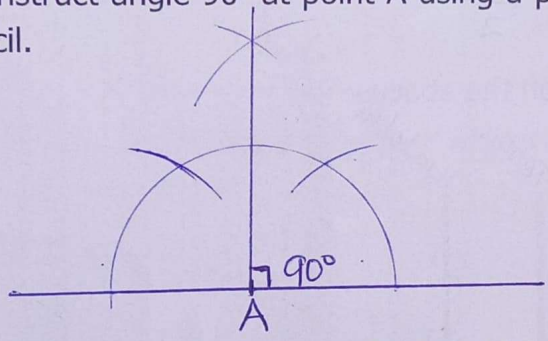
$\frac{2t}{2} = \frac{36}{2}$

$t = 18$

$9 \times 1 = 3$

$q = 3$

12. Construct angle 90^0 at point A using a pair of compasses, ruler and pencil.



13. Express 1 week on a ratio of a fortnight

1 week = 7 days

a Fortnight = 14 days

$\frac{7}{14}$

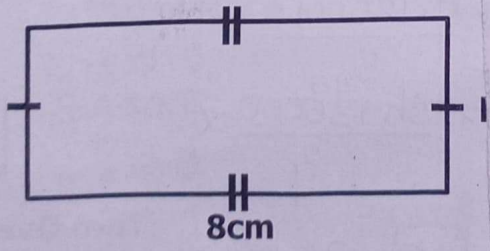
$1:2$

14. Simplify $5p - 6r + 2r - p$

$5P - P - 6r + 2r$

$4P - 4r$

15. A rat moved round the figure below twice and covered 48cm. Find the value of k



$4(L + W) = 48cm$

$4(8cm + k) = 48cm$

$32cm + 4k = 48cm$

$32cm - 32cm + 4k = 48cm - 32cm$

$\frac{4k}{4} = \frac{16cm}{4}$

$k = 4cm$

16. Nakiguli read an English novel from page 14 to page 23. How many papers did she read? 23-14

9+1 10pages

17. The position of Katongole from either side of the line is K. If there are 9 pupils on a line. Find Katongole's position.

$(K \times 2) - 1 = 9$

$2K - 1 = 9$

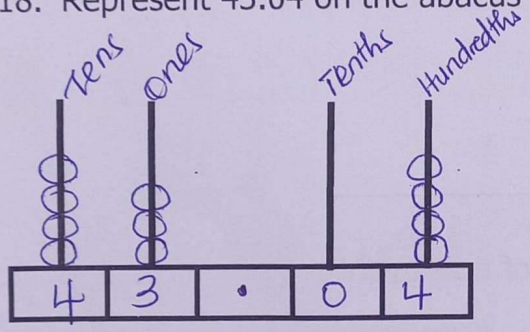
$2K - 1 + 1 = 9 + 1$

$\frac{2K}{2} = \frac{10}{2}$

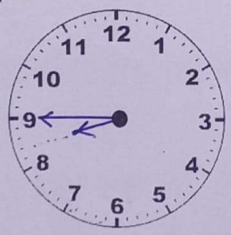
$K = 5$

∴ Katongole is in the 5th position

18. Represent 43.04 on the abacus



19. Show a quarter to 9 on the clock face below



20. The cost of 3 text books is sh. 135,000. Find the cost of 2 similar text books at the same rate

3 text books ⟶ sh 135000

1 text book ⟶ sh 135000 / 3

2 text books ⟶ sh 135000 / 3 × 2

= sh 90,000

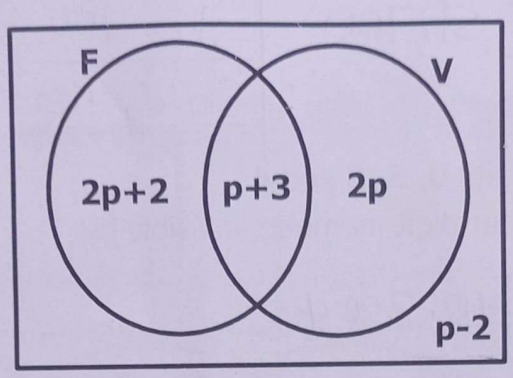
Turn Over

SECTION B: 60 MARKS

*Answer **all** the questions in this section.*

Marks for each question are indicated in brackets.

21. In a sports club, members play football and volley ball as shown in the Venn diagram below. Use the Venn diagram to answer questions that follow.



a) If there are 10 more members who play volley ball than football only, solve for **P** *(02 marks)*

$(2P+P+3)-(2P+2)=10$

$3P+3-2P-2=10$

$3P-2P+3-2=10$

$P+1=10$

$P+1-1=10-1$

$P=9$

b) Find the number of members who play football altogether. *(02 marks)*

$2P+2+P+3$

$2\times9+2+9+3$

$18+2+12$

32members

22. Namatovu Zam bought the following items from a market.

2kg of rice at shs 3200 per kg
1 ½ kg of meat at shs 8000 per kg
A sachet of cooking oil at shs 1,750
500g of salt at shs 1,400 per kg

a) How much money did she spend altogether? *(04 marks)*

Rice
Sh 3200
x 2
Sh 6400

Meat
Sh 8000 x 3/4
Sh 12,000

Salt
Sh 1400 x 500/1000
Sh 700

Cooking oil
Sh 1,750

Total expense
Sh 12000
Sh 6400
Sh 1750
Sh 700
Sh 20,850

23. Given that digits **0**, **3**, **5** and **4**.

a) Form two four digit members divisible by

i) **4** *(02 marks)*

3540, 3504

ii) **5** *(02 marks)*

4530, 4305

b) Find the difference between the largest and smallest 4 digit numerals that can be got from the digit above. *(02 marks)*

Largest = 5430
Smallest = 3045
Difference
5430 - 3045

5 3 12 10
5 4 3 0
- 3 0 4 5
2 3 8 5

24. Tr. Keith drove from Bulo to Mpigi for 3 hours at a steady speed of 60km per hour. He left Mpigi at 11:00am and drove back to Buli on the same road at a steady speed of 90km/hr. At what time did Tr. Keith reach Bulo? *(04 marks)*

Distance from Bulo to Mpigi

$D = S \times T$

$D = \frac{60km}{hr} \times 3hr$

$D = 180km$

Time taken for return journey

$T = \frac{D}{S}$

$T = \frac{180km}{90 km/hr}$

$T = 2hrs$

ET = ST + Duration

11:00am + 2:00hrs = 13:00hrs

1300 - 1200 = 1:00pm

Turn Over

(03 marks)

a) Find the value of y

$y\% + 40\% + 25\% + 15\% = 100\%$

$y\% + 80\% = 100\%$

$y\% + 80\% - 80\% = 100\% - 80\%$

$\frac{y\%}{1\%} = \frac{20\%}{1\%}$ $y = 20$

b) If SST got 2 more distinctions than MTC and ENG, how many candidates sat for PLE in that school ion 2023 (03 marks)

$40\% - (35\%)$

$40\% - 35\%$

5%

$2 \div \frac{5}{100}$

$2 \times \frac{100}{5_1}$

40 candidates

28. The table below shows prime factors of F_{54} and F_z whose GCF is 18.

Use it to answer the questions that follow

F_{54} only	F_z only	$F_{54} \cap F_z$			GCF
k	2_2	3_1	2_1	t	18

Find the value of

a) **t** (02 marks)

$3 \times 2 \times t = 18$

$\frac{6t}{6} = \frac{18}{6}$

$t = 3$

b) **z** (01 mark)

$Z = 2 \times 3 \times 2 \times 3$

$Z = 36$

c) **k** *(02 marks)*

$3 \times 2 \times 3 \times K = 54$

$\frac{18K}{18} = \frac{54}{18}$

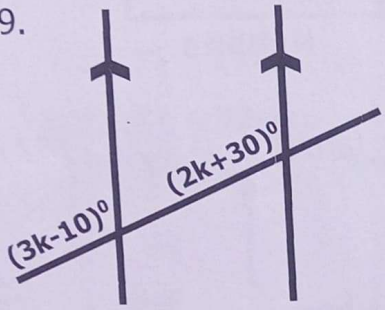
$K = 3_3$

d) Find the LCM of F54 and Fz *(02 marks)*

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

$LCM = 108$

29.



(a) Find the value of **k** *(02 marks)*

$(3k-10)^\circ = (2k+30)^\circ$ (Corresponding angles)

$3k^\circ - 10^\circ = 2k^\circ + 30^\circ$

$3k^\circ - 10^\circ + 10^\circ = 2k^\circ + 30^\circ + 10^\circ$

$3k^\circ = 2k^\circ + 40^\circ$

$3k^\circ - 2k^\circ = 2k^\circ - 2k^\circ + 40^\circ$

$\frac{k^\circ}{1^\circ} = \frac{40^\circ}{1^\circ}$

$k = 40$

(b) Work out the complement of $(t + 40)^\circ$ *(02 marks)*

$90^\circ - (t+40)^\circ$

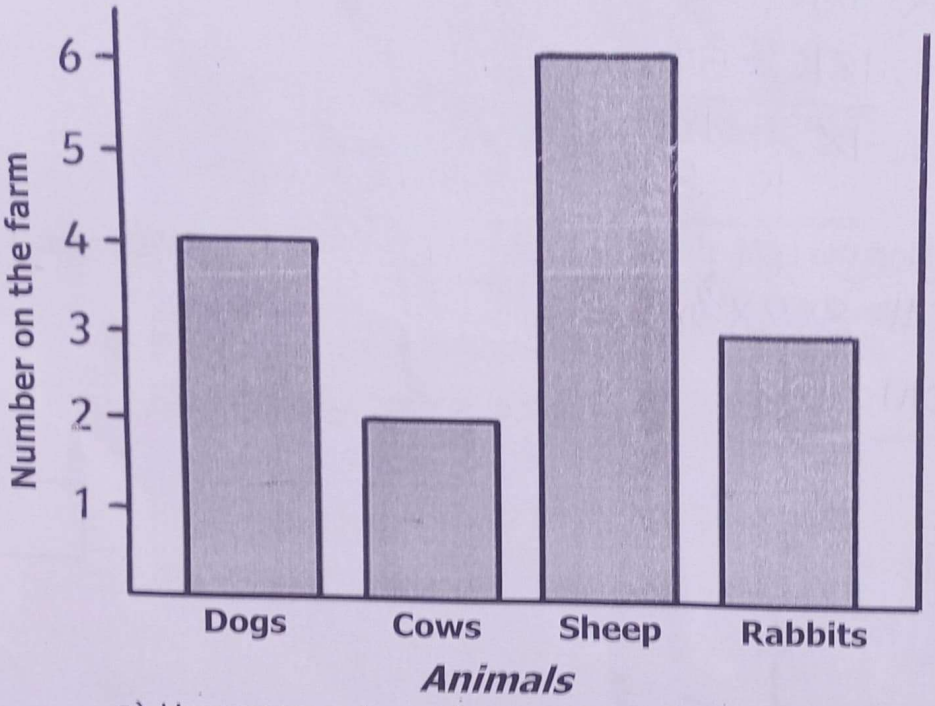
$90^\circ - t^\circ - 40^\circ$

$90^\circ - 40^\circ - t^\circ$

$50^\circ - t^\circ$

$(50-t)^\circ$

30. The graph below shows some of the animals on Emma's farm. Study it carefully and answers the questions about it.



a) How many pets are kept on Emma's farm? *(02 marks)*

4+3

7pets

b) If **eight** cows were not represented on the graph, how may cows are on the farm? *(02 marks)*

2+8

10cows

c) How many animals were represented altogether? *(01 mark)*

4+2cows+6sheep+3rabbits

15animals

Turn Over

31. (a) Work out $\frac{0.23 \times 0.08}{0.4 \times 1.4}$ *(03 marks)*

$(0.28 \times 0.08) \div (0.4 \times 1.4)$

$\left(\frac{28}{100} \times \frac{8}{100}\right) \div \left(\frac{4}{10} \times \frac{14}{10}\right)$

$\frac{2}{28} \times \frac{2}{8} \times \frac{10}{4} \times \frac{10}{14}$

$\frac{4}{100}$

0.04

(b) $1\frac{2}{5} \times 1\frac{1}{2} \div 3\frac{1}{2}$ *(03 marks)*

$\frac{7}{5} \times \left(\frac{3}{2} \div \frac{7}{2}\right)$

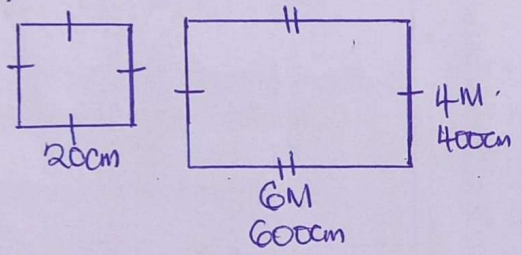
$\frac{7}{5} \times \left(\frac{3}{2} \times \frac{2}{7}\right)$

$\frac{7}{5} \times \frac{3}{7}$

$\frac{3}{5}$

32. Square tiles of sides 20cm each were laid on the floor of a room measuring 6m by 4m.

a) Find the number of tiles needed to cover the floor. *(03 marks)*



$\frac{\text{Length}}{\text{Side}} \times \frac{\text{Length}}{\text{Side}}$

$\frac{600cm}{20cm} \times \frac{400cm}{20cm}$

30×20

600 tiles.

b) If a box containing 25 tiles costs shs 30,000. Find the total cost for tiling the whole floor *(02 marks)*

$\frac{600}{25}$

24

Sh 3000 × 24

+ 12000 6000

Sh 72,000

END