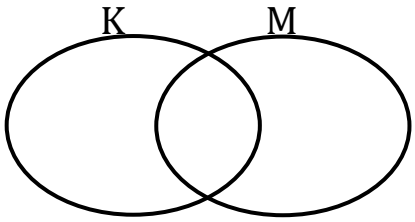
SECTION A (40 marks)

1. Work out: 30×2

2. Find the number whose scientific notation is given below.

   $\mathbf{6 \cdot 434 \times 10^2}$

3. Shade $\mathbf{M - K}$ on the Venn diagram below.



4. Work out: $2 - 4 =$ ____ (mod 5)

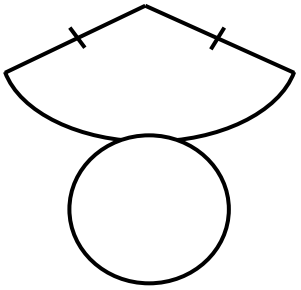
5. Change 38 to quinary base.

6. Simplify: $p - (x - p)$

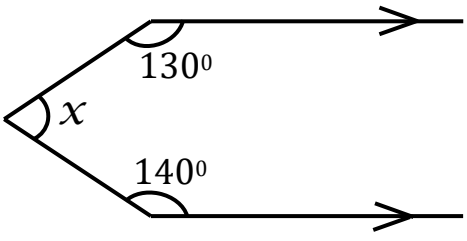
7. Find the largest number of boys who can share 30 or 40 oranges without leaving any remainder.

8. Katumba bought $\mathbf{3\frac{1}{4}}$ dozens of books at sh.78, 000.
Find the cost of 3similar books.

9. Name the solid shape whose net is shown below.



10. Find the value of angle ***x*** in the figure below.



11. Mukalazi came back from Entebbe International airport at eight minutes

to midnight. Express this time in 24-hour clock system.

12. If $\mathbf{k = 8}$ and $\mathbf{w = 6}$, find the value of $\frac{w + k}{k - w}$

13. The average of **3, 8, m, 15** and **18** is **11**.
Find the value of m.

14. Express $12\frac{1}{2}$ **%** as a decimal fraction.

15. In a test, **(+5)** marks are given for every correct answer and **(-2)** marks are given for every wrong answer. Kato answered all the questions, scored 30 marks and got 10 correct answers.

How many wrong answers had he attempted?

16. Kauma is standing facing Southeast direction.
If she turned anticlockwise through an angle of $\mathbf{135^0}$.
Find her new direction.

17. Convert **146·5 kg** to grams and write your answer in words.

18. Solve: $\mathbf{3(p-2) = 6}$

19. In a group of 90 pupils, 60% are boys and the rest are girls.
How many girls are there?

20. Express 0.1212……..as a common fraction.

SECTION B (60 MARKS)

21. The table below shows Ronald's shopping bill.

Item	Quantity	Unit cost	Amount
Sugar	$2\frac{1}{2}$kg	Sh. 4,800	sh. _____
Rice	$2\frac{1}{2}$kg	Sh. _____	sh. 11,500
Salt	_____kg	Sh. 1,200	sh. 9000
Total Expenditure			sh. _____

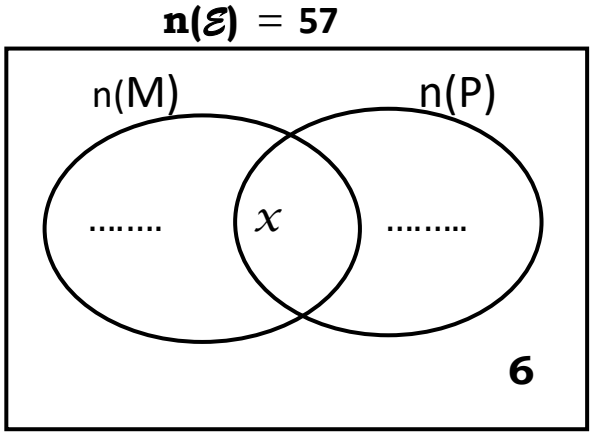
(a) Complete the table. (4 marks)

(b) If he was offered a discount of sh. 3,200, find his percentage discount.

(1 mark)

22. **At a party attended by 57 guests, 35 ate meat (M), 33 ate peas (P), x ate both dishes while 6 ate none of these.**

(a) Complete the Venn diagram below. *(2 marks)*



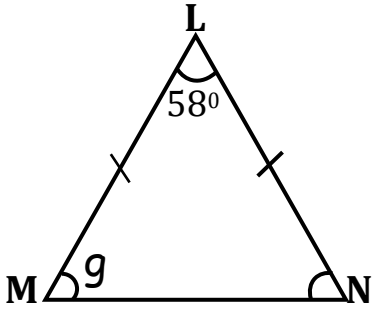
(b) Find the number of guests who ate both dishes. *(2 marks)*

(c) How many guests ate only one type of dish. *(1 mark)*

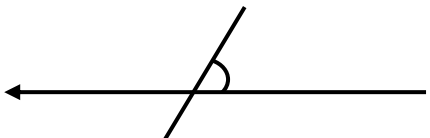
23. The bearing of town **M** from town **Q** is $\mathbf{120^0}$ and town M is 4km from town Q. The bearing of town **C** from **M** is $\mathbf{60^0}$ and town **C** is **5km** from **M**.
(a) Draw an accurate diagram showing the three towns.

(Use scale: 1cm = 1km) *(5 marks)*

24(a) Work out the value of **g** in triangle **LMN**. *(3 marks)*



(b) In the figure below, **AB** is parallel to **CD** .
What is the value of **y** . *(2 marks)*

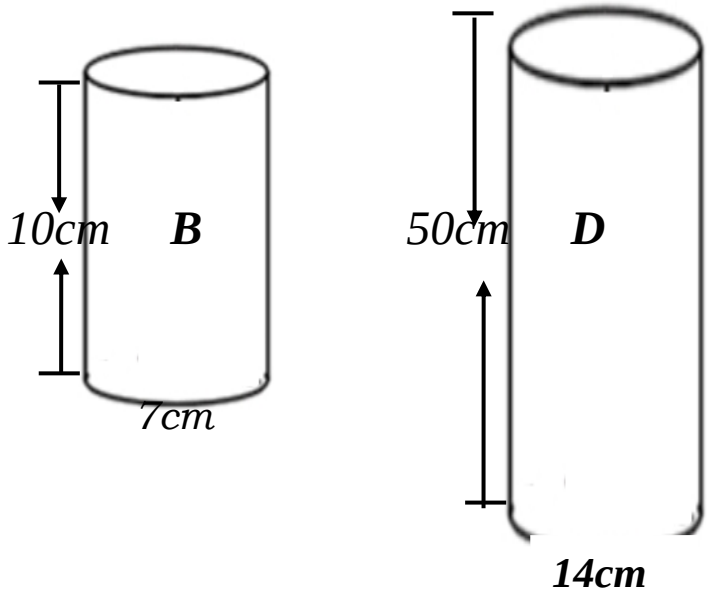


A $2y+10^0$ **B**

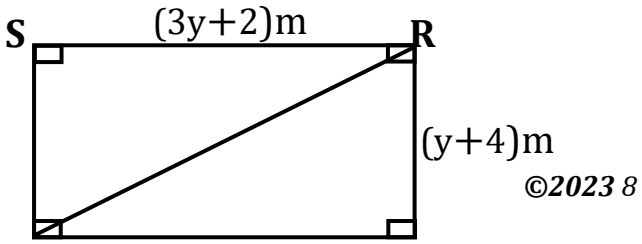
C 80^0 **D**

25. Rwegaba had container D full of juice, he sold it all at 600/= per container B. How much money did he get? **(Use $\pi = \frac{22}{7}$)**

(4marks)



26. The figure below is a rectangle **PQRS**.



P (y+6)m **Q**

(a) Work out the value of ***y***. (2 marks)

(b) Find the length of $\overline{\mathbf{PR}}$? (4 marks)

27. A motorist covered a journey from town A to town B in 3 hours at 80km per hour. He then covered the remaining journey to town C in 2 hours at 75km per hour .

(a) What is the distance between towns **A** and **C**? *(3 marks)*

(b) Calculate the motorist's average speed for the whole journey .
(2 marks)

28(a) Using a ruler , a pencil and a pair of compasses only, construct triangle BCD in which $\overline{CB} = 8cm$, $\overline{BD} = 7cm$ and angle $CBD = 60^0$.
Drop a perpendicular line from point D to meet $\overline{BC}$ at M .

(5 marks)

(b) Measure : $\overline{DM}$ _____ (1mark)

29(a) Express 9 minutes as a percentage of $\frac{3}{4}$ hrs. *(2 marks)*

(b) Work out : $\dfrac{34{\cdot}1 - 19{\cdot}7}{0{\cdot}6 \times 0{\cdot}8}$ *(3 marks)*

30(a) What number has been expanded to give :
$\mathbf{(8 \times 10^3) + (2 \times 10^2) + (9 \times 10^0)?}$ *(2 marks)*

(b) Use distributive property only to work out .
$\mathbf{(7{\cdot}34 \times 47) + (7{\cdot}34 \times 53)?}$ *(2 marks)*

31. Charles sold his phone to Betty at 80,000= making a loss of 20%.
Betty later sold it to Richard at a profit of 10%.

(a) Calculate the amount of money Charles paid for all the phone.

(3marks)

(b) How much money did Betty sell the phone.

(2marks

32. Mulika left town **L** at **9:00am** and drove at 55km/hr for 2hours to town N. He rested for half an hour at town **N**. He left town N and drove for **1½ hr** at **40km/hr** to town **M**. He rested for half an hour at town **M**. He then left town **M** and drove back to town **L** at **85km/hr**.

(a) Draw Mulika's journey on the graph provided. *(3marks)*