

### SECTION A (40 MARKS)

1. Divide 39 by 3

2. Write: "One hundred sixty four" in Roman numerals.

3. Given that set  $M = \{\text{All triangular numbers less than } 10\}$ , find the number of subsets in set  $M$ .

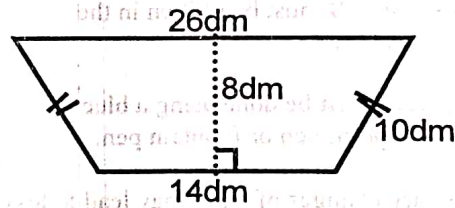
4. Reduce 640kg by  $12\frac{1}{2}\%$

5. Find the next number in the sequence below.

27, 26, 23, 18, 11, \_\_\_\_\_

6. A football match ended at 5:35pm. If it took 90 minutes, at what time did it start?

7. Calculate the area of the figure below.



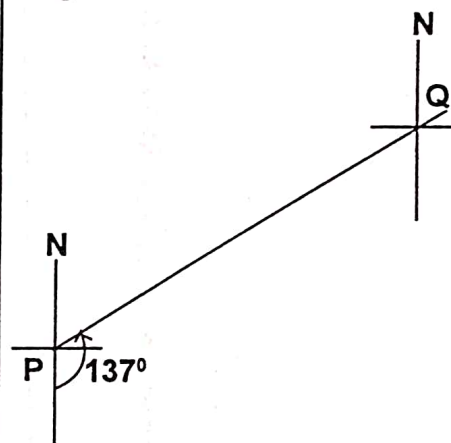
8. Arrange the following numbers given below starting with the smallest to the biggest. -6, +3, -2, 0, +5 and -9

9. Work out the mean of :  $(n-2)$ , 14, 13, 15, and  $4n$ .

10. A trader bought a tray of eggs at sh.12,500 and later sold each egg at sh.500. Calculate his profit.

11. Solve:  $-3(6-2w)=36$

12. What is the bearing of P from Q in the diagram below?



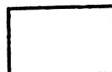
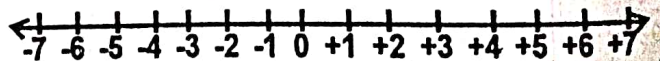
13. Evaluate:  $\frac{2}{7} + \frac{2}{3} + 2$

14. Without dividing show that 1,496 is completely divisible by 11.

15. Express **0.0006** in scientific notation.

16. The interior angles sum of a regular polygon is  $540^\circ$ . Calculate its number of sides.

17. Workout  $+3 \times +2$  using the number line given below.



18. Work out: 
$$\begin{array}{r} 5043 \\ - 2879 \\ \hline \end{array}$$

19. A motorist covered a distance of 45 metres in 3 seconds. Calculate his speed in Km/h.

20. A trader deposited twenty thousand shillings note worth sh.2,000,000 in DFCU bank. If the last note serial number is ED6320517. Find the first note serial number.

### SECTION B (60marks)

21. (a) Given that,  $P=8$ ,  $q=r = -6$ . Find the value of  $P+qr$ . (2marks)

(b) The cost of a book is sh.( $P+1800$ ) and a pen costs half of it. Their total cost is sh.14,400. Find the cost of a book. (3marks)

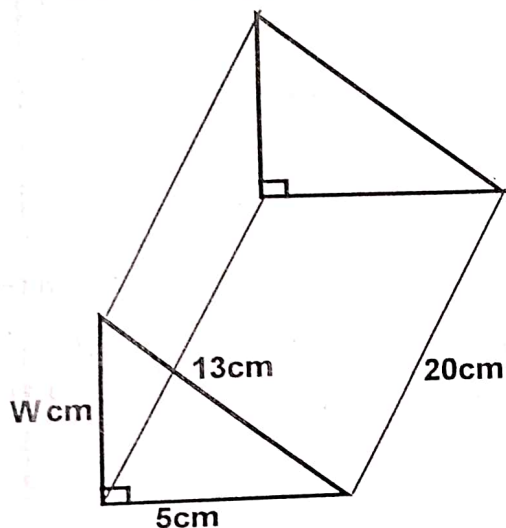
22. (a) Find the LCM of 45 and 54. (2marks)

(b) In a school, lessons in lower, middle and upper classes take intervals of 30minutes, 40minutes and 1 hour respectively. If all the lessons started at 8:30am. At what time will they start together again? (3marks)

(b) Calculate the total surface area of the above figure. (2marks)

24. (a) Simplify  $\frac{0.36 + 0.24}{0.4 \times 0.3}$  (3marks)

23. The figure below is a triangular prism. Use it to answer questions that follow.



(a) Find the value of **W**. (2marks)

(b) Calculate the simple interest on shs.180,000 at the rate of 5% per month for  $1\frac{1}{2}$  years. (2marks)



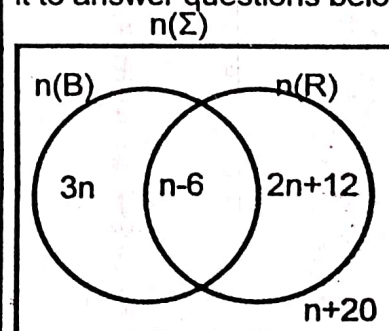
25. Using a ruler, a pencil and a pair of compasses only, construct a parallelogram **KLMN** where **KL=6cm**, **LM=4.5cm** and angle **KLM=120°**. Drop a perpendicular line from point **N** to meet line **KL** at **T**. (5marks)

26. (a) Change 7:50pm into 24hour clock system. (2marks)

(b) A motor boat took  $3\frac{1}{4}$  hours to travel from port A to port B. If the speed was 48km/hr. Calculate the distance between the two places. (2marks)



27. The venn diagram below shows farmers who grow beans (B) and Rice (R). Use it to answer questions below.



(b) Measure the length of **NT**. (1mark)

(a) If the number of farmers who grow neither of the two crops is 3 times those who grow both crops. Find the value of  $n$ . (2marks)

(b) How many farmers grow rice? (2marks)

(c) If a farmer is chosen at random what is the probability that he/she grows both crops? (1mark)

28. Below is a frequency table. Fill in the missing numbers. (5marks)

Scores	Tallies	Frequency	Total
13		2	26
8	III	3	
	HH	5	50
6	HH III	8	48
14	HH II		98
Total			

29. At a graduation party a mother prepared juice and packed it in a rectangular container measuring 60cm by 40cm by 50cm.

(a) Calculate the volume of the container. (2marks)

(b) How many litres of Juice can it hold when it is completely full? (2marks)

(c) If all guests were served with a 500ml cup of juice each, how many guests attended the party? (2marks)

(b) Brown from United Kingdom has 360 pound sterling. How much money will he get in Kenya shillings?(3marks)

30. Below is the exchange rates at Virah Forex Bureau.

1 pound sterling - Ug.shs.4,500

1 K. shilling - Ug. shs.30

(a) Omondi has K.shs.2,480. How much money can he get in Uganda shillings? (2marks)

31. The table below shows the arrival and departure time for a bus from Gulu City to Tororo. Study it and answer questions that follow.

Towns	Arrival time	Departure time
Gulu	_____	8:15am
Lira	10:30am	10:40am
Soroti	11:55am	12:05pm
Mbale	2:25pm	2:40pm
Tororo	4:15pm	_____

(a) How long did the bus take to travel from Lira to Soroti? (2marks)



(b) Express the time the bus left Soroti in 24hour clock system. (1mark)

(c) If the bus was travelling from Gulu to Tororo at a speed of  $67\frac{1}{4}$ km/hr, calculate the distance between the two towns. (3marks)

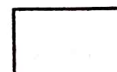
32. (a) Work out:

(2marks)

$$\begin{array}{r} 3 \ 1 \ 0 \ 2_{\text{four}} \\ - \ 1 \ 2 \ 3 \ 1_{\text{four}} \\ \hline \end{array}$$

\_\_\_\_\_

(b) Convert  $68_{\text{ten}}$  to senary system. (2marks)



END