SUREKEY EXAMINATIONS BOARD
SPECIAL MOCK EXAMINATION
2024
MATHEMATICS

Time Allowed: 2 hours 30 minutes

EMIS NO.						Personal No.		

Candidate's Name: ....

Candidate's Signature: ....

School Name: ....

Read the following instruction carefully:

FOR EXAMINERS' USE ONLY		
QN.NO.	MARKS	EXR'S NO.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Answer **all** questions in this section

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

1. Simplify: $6a + 3a + a$

2. Write in words, 650,009.

   ....

   ....
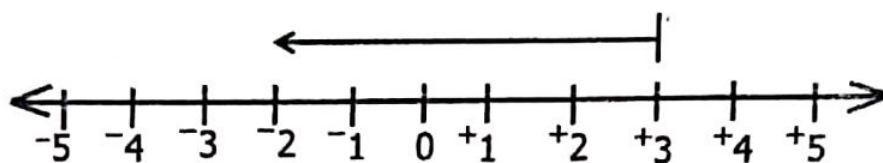
3. If Set L = {a, b, e, d, i, t} and Set M = {e, w, x, t}.
   Find $n(M - L)$

4. Change 6500 millilitres to litres.

5. Workout the additive inverse of the integer represented by the arrow on the number line below.

6. The length of a rectangle is 3 times the width. The perimeter of that rectangle is 24m. Find its width.

7. How many hours are there between 9:40a.m. to 1:10p.m.?
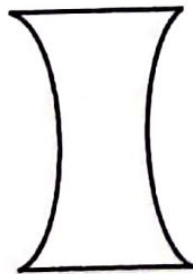
8. Workout:
$$\begin{array}{r} 3\ 4\ 1 \\ \times\quad 8 \\ \hline \\ \hline \end{array}$$

Turn Over

9. A school bursar issued receipts to pupils from serial number 290 to serial number 349. How much money did the bursar collect if each receipt was worth sh.20,000?

10. A father is twice as old as his daughter. Their total age is 45 years. How old is the daughter?
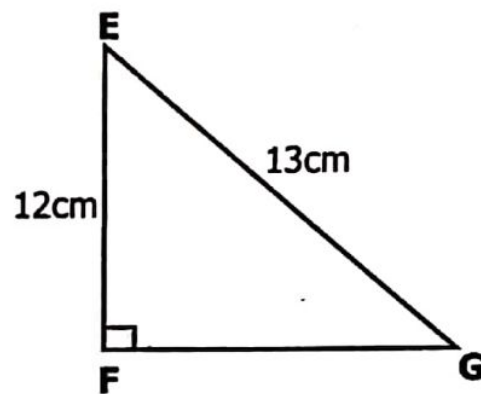
11. How many lines of folding symmetry does the shape below have?

12. Simplify: $\frac{3}{4} - \frac{7}{8} + \frac{1}{4}$

13. Calculate the sum of all the interior angles in a regular octagon.

14. Find in centimetres (cm), the length **FG** in the figure below.
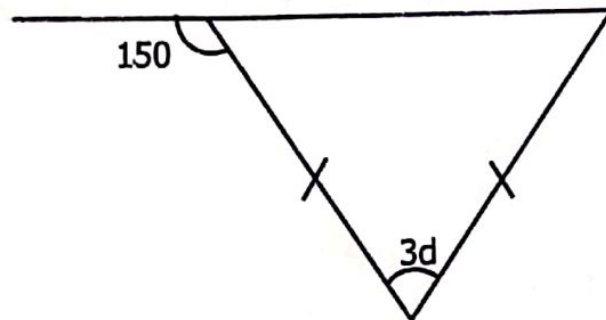

15. An Express bus consumes one litre of petrol to travel for 2 hours. How much petrol does it need to cover a distance of 200km at a speed of 20km/h?

5

16. Express 48 as a product of its prime factors.

17. In the diagram below, find the value of d.

18. Share 27kg of posho between two men in the ratio 3:6.

19. Workout:
$$
\begin{array}{r}
1\ 0\ 1_{two} \\
\times\ \ 1\ 1_{two} \\
\hline
\\
\hline
\end{array}
$$

6

20. The cost of a handbag is US $340. If one US dollar costs Ugsh.3,900. Find the equivalent cost of the handbag in Uganda Shillings.

☐.

SECTION B: 60 MARKS

Answer **all** the questions in this section

Marks for each question are indicated in brackets

21. (a) Solve for m: $3(4 + m) - (m - 5) = 33$. (03 Marks)

(b) If $a = 4$ and $b = 5$. Find the value of x if,

$x(a + b) - ab = 7$ (03 Marks)

Turn Over

may lead to **loss of marks**.

	50 - 52		
	53 - 55		

6. Do not fill anything in the table indicated: **"FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

TOTAL		

CamScanner

22. At a graduation party, x guests ate Chicken (C) and 24 guests ate Beef (B), 6 ate both beef and chicken while 4 did not eat any of the two dishes.

(a) Complete the Venn diagram correctly. (02 Marks)

n(Ɛ)
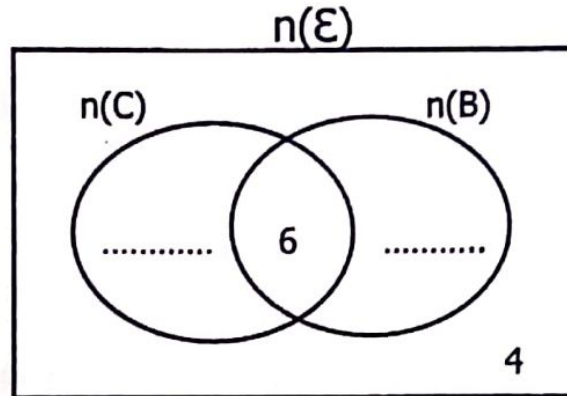
(b) Given that 20 guests ate only one type of sauce, find the value of x. (02 Marks)

(c) How many guests attended the party? (01 Mark)

23. The average age of a class with 20 pupils is 13 years. If the number of pupils decreases by 4, the average age of the remaining pupils is 14 years. Calculate the average age of pupils who left the class.

(04 Marks)

24. A seamstress rolled a piece of thread of length of 22 metres around a bobbin of diameter 14cm as shown below.

14cm
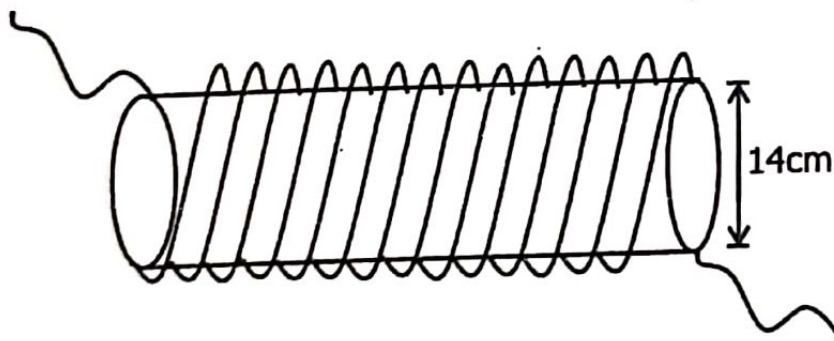
Find the number of times the thread was rolled round the bobbin.

(Use π as $\frac{22}{7}$) (04 Marks)

Turn Over

25. During a quiz competition, each participant was asked 20 questions. Every correct response was awarded 5 marks and 2 marks were deducted for every wrong response.

(a) Martha got only 3 wrong responses, what was her score?

(02 Marks)

(b) If a participant got 86 marks, how many correct responses did he give?

(03 Marks)

26. (a) Simplify: $\dfrac{0.19 + 0.05}{0.3}$

(02 Marks)

(b) The probability of choosing a black bead from a box is $\frac{5}{7}$.
The box contains 30 red beads. How many beads are in the box? (03 Marks)

27. Nabwire deposited sh.800,000 in Equity bank which offers a simple interest rate of 10% per year. She wanted to keep her money with the bank for 5 years but after 2 years, she withdrew sh.600,000.

(a) How much money remained on her account after the withdraw? (03 Marks)

(b) Calculate the amount of money Nabwire had in the bank after the 5 years. (03 Marks)

28. Study the diagram below and use the information on it to answer the questions that follow.
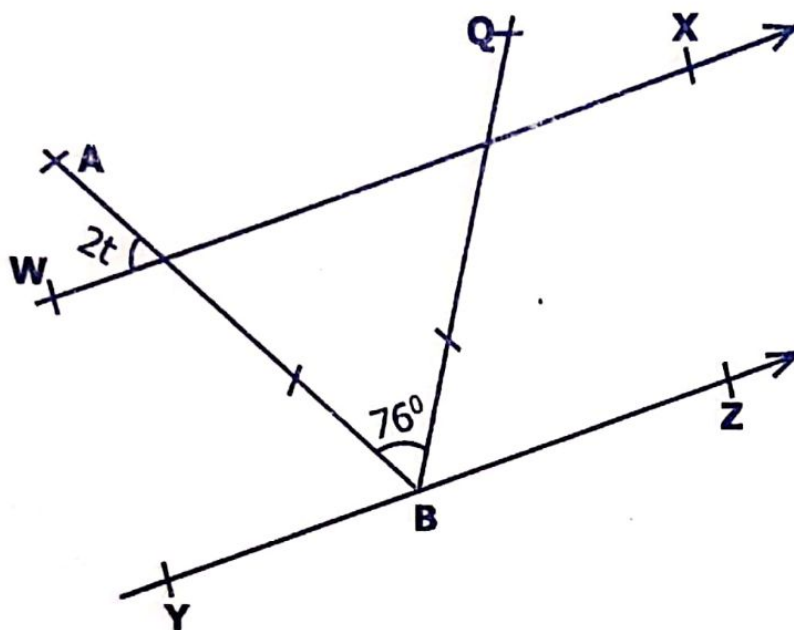
(a) Find the value of t. (03 Marks)

(b) Calculate the size of angle marked **QBZ**. (01 Mark)

29.   Nambasa left Kampala New Taxi Park at 8:15a.m. travelling at a speed of 80km/h and reached Jinja at 9:45a.m. She stayed in Jinja for $1\frac{1}{2}$ hours and returned to Kampala in 2 hours.

(a)   Workout the distance she covered from Kampala to Jinja.
                                                                                (03 Marks)

(b)   Calculate her average speed for the whole journey.
                                                                                (03 Marks)

30.   Mulago hospital admitted 64 patients daily in a certain week. For the last two days of the week 120 patients were discharged daily. How many patients were in the hospital at the end of the week?
                                                                                (04 Marks)

13   **Turn Over**

31. Study the figure below carefully and use it to answer the questions that follow.

17cm

28cm
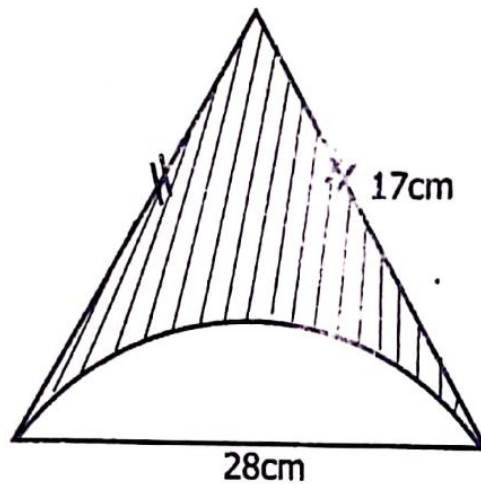
(a) Find the area of the unshaded part of the diagram below.

(Use π as $\frac{22}{7}$)   (02 Marks)

(b) Workout the distance around the shaded region. (03 Marks)

32. At St. Agness Primary School, the office is located in the South-East of the main gate at a distance 600 metres. The dining hall is 500 metres from the office at a bearing of 085⁰.

(a) Draw a sketch diagram showing the three places in the school.

(01 Mark)

(b) Using a scale of 1 cm to represent 100 metres, draw an accurate diagram showing all the three places.

(04 Marks)

(c) What is the bearing of the main gate from dining hall?

(01 Mark)

END