THE SPECTRUM EXAMINATIONS HUB

PRE-MOCK EXAMINATIONS, 2024 SET 2

MATHEMATICS

Time allowed: 2 hours 15 minutes

	EMIS No.						Personal No.		
Index No.									

PUPIL'S NAME: .....

SCHOOL NAME: .....

DISTRICT NAME: .....

Read the following instructions carefully:

1. This paper has two sections: A and B.
2. Section A has 20 questions (40 marks)
3. Section B has 12 questions (60 marks)
4. Answer all questions. All the working for both sections A and B must be shown in the spaces provided.
5. All working must be done using a blue or blackball point pen or ink. Any work done in pencil will NOT be marked except drawings and diagram.
6. No calculators are allowed in the examination.
7. Unnecessary changes in your work and handwriting that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the table indicated; "For examiners' use only" and the boxes inside the question paper.

FOR EXAMINER'S USE		
QN. NO.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A

1. Multiple: 3 3
   x 3

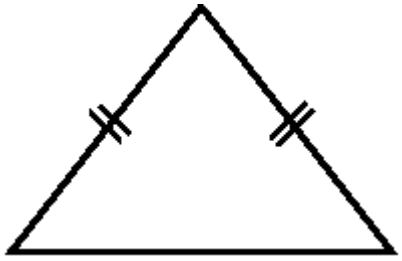
   _____

2. Express 153 km in metres.

3. Namulindwa scored the following marks in a series of Mathematics homework. 4,8,9,3,4,5,2. Find her mean mark.

4. Subtract: x – 5 from 5 – x

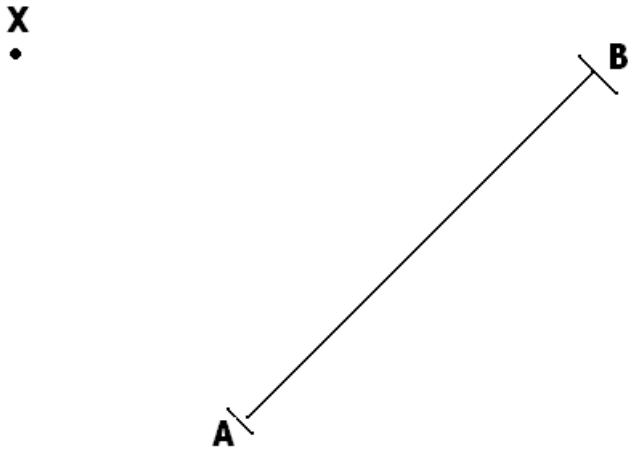
5. How many lines of folding symmetry does the figure below have? (show the lines)



6. How many triangles are formed in a regular polygon with 6 sides?

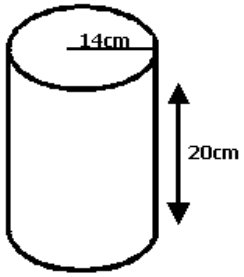
7. Express 36km/hr in m/sec

8. Using a sharp pencil, ruler and a pair of compasses only, drop a perpendicular line from point X to line AB



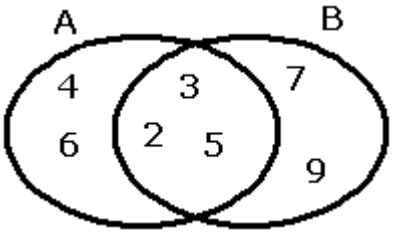
9. Increase by 2000/= by 40%

10. Calculate the volume of cylindrical tin below.



11. Find the number of elements in

$A \cap B$

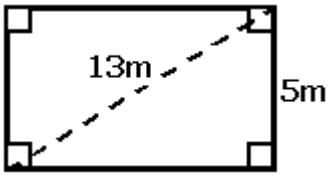


12. Simplify $2k - 4 + k + 2$.

13. Add: $1\ 1\ 0_{two}$

$+1\ 1\ 1_{two}$

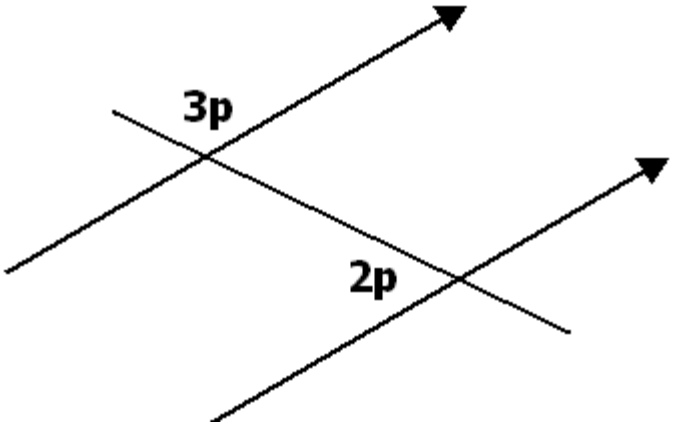
14. Calculate the area of the rectangle below.



15. Divide: 0.035 by 0.007

16. Calculate the simple interest on sh. 140,000 invested in the bank for 2 years at 3% p.a

17. Find the value of P in the diagram below.



18. The mean of the numbers 8,2,4,9,6, m and 7 is 6. Find m

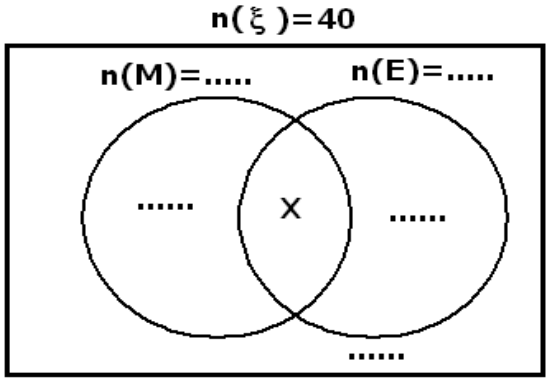
19. The bearing of Town x from Town Y is 045^{o}. What is the bearing of Town Y from Town X?

20. After spending 2/5 of his money. Mrs. Kasadha was left only 360,000shs. How much money did she have at first?

SECTION B

21. In a class of 40 pupils, 25 enjoy maths **(M),** 19 enjoy English **(E**), **X** enjoy both subjects while 2 pupils do not enjoy any of the two subject.

(a) Use the information above to complete the Venn diagram correctly. **(2 marks)**



(b) Find the value of x. **(2marks)**

(c) Find the probability of selecting a pupil in the set (**E** U **M**) to become a head prefect. **(1mark)**

22. The interior angle of a regular polygon is 90^{o} more than the exterior angle.

(a) Find the exterior angle. **(2marks)**

(b) How many sides does it have? **(2 marks)**

(c) Work out the interior angle sum of the polygon. **(2marks)**

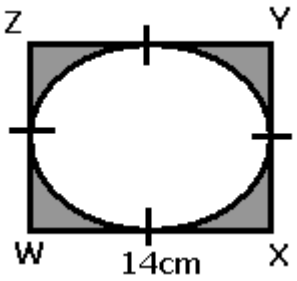
23(a) Solve: $\frac{n-2}{2} = \frac{4m+4}{11}$ **(2marks)**

(b) Simplify: $\frac{5}{6} - \frac{1}{3} + \frac{1}{4}$ **(2 marks)**

24(a) Using a sharp pencil, ruler and a pair of compasses construct a parallelogram PQRS where PQ= 7cm. QR = PS= 4cm $\angle SPQ = 60^o$

(b) Measure diagonal QS.

25. Below is a circle inscribed in a square. Study the diagram and answer questions that follow.



(a) Calculate the area of a square. WXYZ.

(b) Find the area of the inscribed circle.

(c) Work out the area of the shaded part.

26. In 2020, Wakiso district registered 155488 candidates for Primary Leaving Examination. Of these 116,887 passed, 624 had their results cancelled because of malpractices and the rest failed.

(a) How many candidates failed?

(b) If 109, 488 of those who passed went to schools of their choices. How many candidates passed but failed to join schools of their choices?

27. Kafuluma sold an article to Kayongo at sh. 120,000 and realized a profit of 20%.

(a) Calculate his cost price.

(b) If Kayongo sells it out at a loss of 2%. Calculate his selling price.

28. (a) What number has been expanded to get?
$(4 \times 10)^4 + (7 \times 10)^1 + (6 \times 10^{-1})$

(b) Round off 69.96 to the nearest tenths.

(c) If today is Thursday, what day of the week will it be 69 days to come?

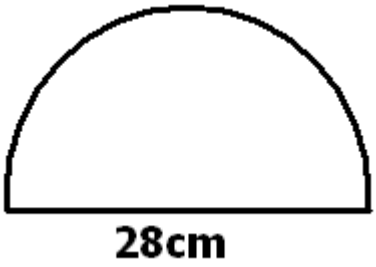
29. The pie-chart below shows how Mr. Ombaga spends his monthly salary. Study it carefully and answer the questions that follow.

(a) Find the value of y.

(b) If he spends sh.720, 000/= on clothing, how much does he earn per month?

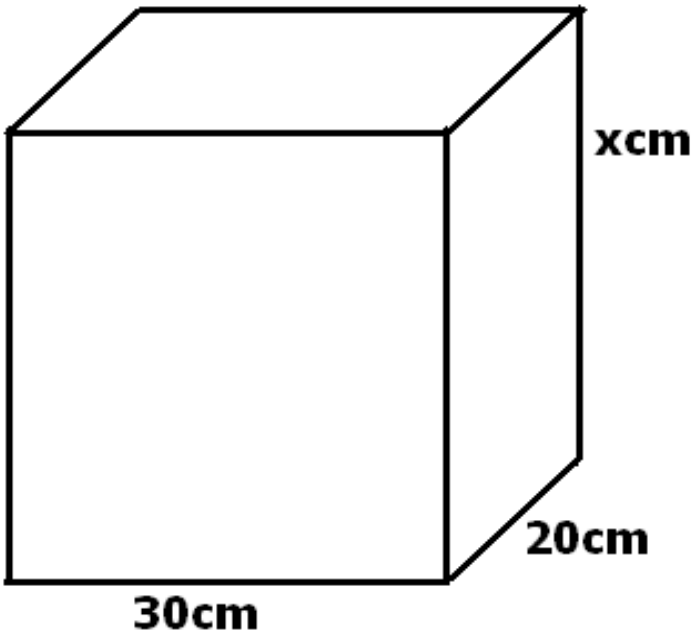
(c) How much more money does he spend on food than he saves?

30(a) Find the distance around the semi-circle below.



(b) Calculate the radius of a circle whose circumference is 88cm.

31. A rectangular tank 30cm by 20cm by x cm has its volume as 6000cm^3



(a) Calculate its height x cm

(b) Find its capacity in litres.

32. In the 2024-Euro Cup. The 10 top scores scored the following goals.

Striker	**Country**	**Goals**
Ronaldo	Portugal	6
Harry Kane	England	5
Fernandez	Portugal	4
Mbappe	France	4
Akanji	Switzerland	4
Modric	Croatia	3
Virgil	Netherlands	3
Foden	England	3
Nicholas	Spain	3
Rodri	Spain	3

(a) Who scored the most number of goals?

(b) What was the modal goals scored?

(c) How many goals were scored by Netherlands?

(d) Work out the mean of goals scored.

THE END