## **SECTION A (40 MARKS)**

1. Solve: 2 + K = 1

2. Express 750g as a fraction of 2kg.

3. Atim is aged 19 years. Express her age in Roman numerals.

4. Convert  $1100_{two}$  to ten base.

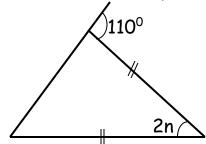
5. Given that  $K = \{all\ composite\ numbers\ between\ 5\ and\ 12\}\ and\ M = \{square\ numbers\ between\ 0\ and\ 15\},\ find\ n(K \cap M)$ 

6.	Simplify:	$1\frac{1}{3}$ -	2	3
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7. The cost of 9 pens is sh. 81,000. How many similar pens can one buy with sh. 108,000?

8. The ratio of boys to girls in a class is 3:5. If the class consists of 40 pupils, how many more girls than boys are in that class?

9. Calculate the value of n in degrees.

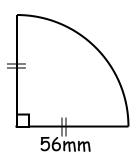


10. The average mark of 8 pupils is 74. What is 10 marks more than their total mark?

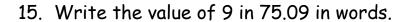
11. Given that a = -7, b = 5 and c = -2, find the value of  $2a^2 - bc$ .

12. After covering  $\frac{3}{7}$  of his journey, a motorist still had 40km to reach his final destination. How long was the whole journey?

13. Find the perimeter of the figure below (take  $\pi$  as  $\frac{22}{7}$ ).



14. A lesson of 45 minutes ended at 3:15p.m. At what time did it beg	14.	A le	esson of	45	minutes	ended at	3:15p.m.	At what	time	did it	begi	<b>1</b> ?
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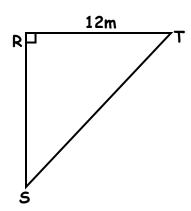


16. Drop a perpendicular from point P to meet line TB at O.





17. Work out the length of TS if the area of the figure below is 30 square metres.



18.	A trader deposited sh. 500,000 in Centenary Rural Development Bank at an interest rate of 10% p.a for 6 months. Find the simple interest he earned after that period.
19.	8 men can slash a school compound in nine days. How many more men are needed to slash the same compound in only three days if they work at the same rate?
20.	What is the square of seven hundredths?

## SECTION B( 60 Marks)

- 21. Agaba is 15 years older than Ashaba. In five years' time, Ashaba will be half as old as Agaba.
  - (a) How old is each now?

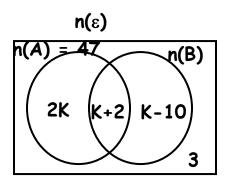
(b) How old was Agaba fifteen years ago?

22. A circular wheel has a radius of 14cm. How many complete revolutions will it make to cover a distance of 8.8km?

23. (a) Simplify:  $1\frac{3}{7} + 7\frac{2}{3} \div 3\frac{5}{6}$ 

(b) Mr. Musoke bought a car at sh.8,500,000 and sold it to Mrs. Katongole at loss of 10%. Mrs. Katongole sold it to Mr. Ejalu at a profit of 20%. How much money did Mr. Ejalu pay for the car?

24. Study the Venn diagram below and answer questions that follow.



(a) Find the value of K.

- (b) Work out
  - (i)  $n(B)^1$

	(	ii)	n(ε)	
25.			lept from 9:20p.m to 12:45a.m the following day. asleep?	For how
	(b) Ex	press (	40m/s to km/hr.	

Convert 12:25p.m to the 24 hour clock system.

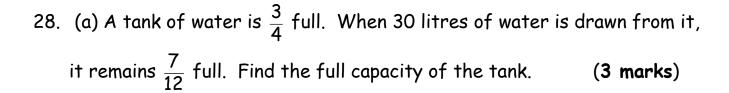
(c)

26. A farmer in Nakasongola district used her land as follows;

 $\frac{1}{4}$  of it to grow tomatoes,  $\frac{1}{2}$  of it to rear animals and the rest for food crops. Represent the above information on a pie-chart of radius 5cm.

27. (a) Using a pair of compasses, a sharp pencil and a ruler only, construct a parallelogram QPRS and ruler only, where QP = 5.5cm and PR = 4cm and angle  $SQP = 60^{\circ}$ .

(b) Measure the length of diagonal QR.



29. (a) Work out the product of the next two numbers in the sequence below.

1, 8, 27, 64, \_\_\_\_, \_\_\_\_

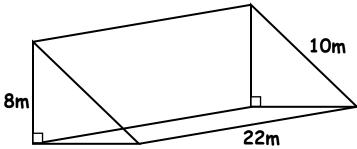
(b) The median of three consecutive even numbers is y. Find the numbers if their sum is thirty.

30. (a) Evaluate: 2.5 - 9.55 + 10.6

(b) Simplify: 
$$\frac{2^6 \times 2^9}{2^4 \times 2^7}$$

(c) What number has been written in standard form to give 2.73  $\times$  101?

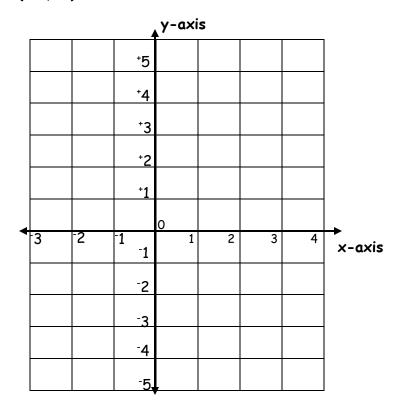
31. Below is a triangular prism. Study it carefully and answer questions about it.



(a) Calculate its volume.

(b) Work out its total surface area.

32. (a) On the grid below, plot these points  $C(^-2,3)$  D(1, 3) E(3,  $^-1$ ) and F( $^-2$ ,  $^-1$ )



- (b) Join C to D, D to E, E to F and F to C.
- (c) Name the figure formed.

END.