OUTREACH SCHOOLS EXAMINATIONS BOARD

P. 7 EXAMINATION SET 6

MATHEMATICS.

Time allowed:2hrs:30mins

INDEX NUMBER									

NAME: _____

Signature: _____

Stream _____

Date _____

FOR EXAMINER'S USE ONLY

A	
B	
TOTAL	

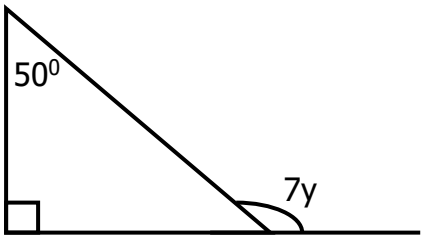
Read the following instructions carefully:

1. **This paper is made up of section A and B.**
2. **Section A has 20 short answer questions (40 marks).**
3. **Section B has 12 questions (60 marks).**
4. **All answers to both section A and B must be written in the spaces provided.**
5. **All answers must be written in blue ink and diagrams should be drawn in pencil.**
6. **Any handwriting that cannot easily be read will lead to loss of marks.**
7. **Unnecessary alteration of work may lead to loss of marks.**
8. **No calculators are allowed in the examination room.**

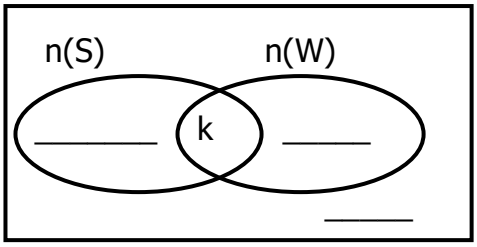
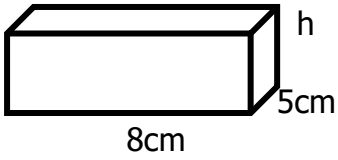
TEACHER'S COMMENT	
SIGNATURE	
Date:	

SECTION A:40 MARKS

Questions 1 to 20 carry two marks each

1.	Work out: 21 ÷ 3	2.	Write "Four hundred nine" in Roman numerals.
3.	Simplify: 2(a – 4) – 2 (a + 5)	4.	Twelve litres of milk were given to some children. If each child got ¾ of a litre of milk, how many children got milk?
5.	The LCM of two numbers is 60 and their GCF is 3. If one of the numbers is 15, find the second number.	6.	Find the size of angle y in the figure below. 
7.	Andrew deposited sh.600,000 in the bank that offers an interest rate of 3% per year for 1 ½ years. Find the interest earned by Andrew.	8.	Change 25m/s into km/hr.

9.	A mathematics lesson ended at 1:25pm. If it had lasted for 1 ¾ hours, at what time did the lesson start?	10.	In the space below, construct an angle of 45^0.
11.	Show 134_{six} on the abacus.	12.	Increase sh.4000 by 12%.
13.	If today is Thursday, what day of the week was it 33 days ago?	14.	What is the 99^{th} equivalent fraction of $\frac{2}{5}$?
15.	Find the range of -9 and -5.	16.	Solve: $5 - 3x = 17$
17.	Work out: 5¾ ÷ 2 ¼	18.	Calculate the radius of the circle whose circumference is 88m. (Take π as $^{22}/_{7}$)

19.	If 5 men take 4 days to paint the house, how many more days will 2 men take to paint the same house?	20.	What is the least number which should be added to 2497 so that the sum is exactly divisible by 5, 6, 4 and 3?
SECTION B: (60 MARKS)			
21.	At a party of 45 guests, 30 drink soda(S), 20 guests drink water(W) only, k drink both soda and water while 4 guests do not drink any of the two drinks. a) Complete the Venn diagram below. (3mks) n(∑) = 45  b) Find the value of k. (2mks) c) How many guests drink only one drink? (1mk)	22.	The volume of the figure below is 0.24litres. Use it to answer the questions that follow.  a) Find the value of h. (2mks) b) Work out the total surface area of the figure above. (2mks)

23.	The sum of the values in the table is the same vertically, horizontally and diagonally. Fill in the missing values to complete the table. (5mks) 1 | 15 | 14 | 4 12 | ..... | 7 | 9 8 | 10 | ..... | 5 ..... | ..... | 2 |		
24.	a) Using a ruler and a pair of compasses only, construct a triangle PQR in which PQ = 8cm, angle PQR = 45^0 and angle QPR = 60^0. (4mks) b) Measure the line QR. (1mk)		
25.	The table below shows the marks scored by pupils in a mathematics test. Marks scored | 80 | 70 | 90 | 60 Number of pupils | 2 | 1 | 3 | 4 a) How many pupils sat for the test? (2mks) b) Find the mode score. (1mk) c) Work out the mean mark of the pupils who scored above 70 marks. (2mks)		

26. a) Work out: $\frac{\mathbf{0.24 \times 1.5}}{\mathbf{0.8 \times 0.5}}$

b) Simplify: $\frac{2}{3} + \frac{3}{4} \div \frac{5}{6}$ (2mks)

27. Mukasa went to the market and bought the items as shown on the table below.

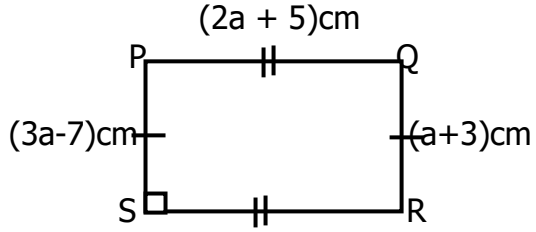
Item	**Quantity**	**Unit price**	**Total cost**
Sugar	2kg	Sh.3,500perkg	Sh. .....
Meat	.....kg	Sh.8,000per kg	Sh. 24,000
Milk	2 ½ litres	Sh.1,200each litre	Sh. .....
Bread	4 loaves	Sh. .....@loaf	Sh. .....
	Total expenditure		Sh. 42,000

Complete the table above. (5mks)

28. a) $\frac{2}{3}y + 4 = 10$ (3mks)

b) Olupot was 5 years older than his brother Jamwa ten years ago. If their total age is 55 years now, how old is Jamwa now? (2mks)

29. Study the diagram below and use it to answer the questions that follow.

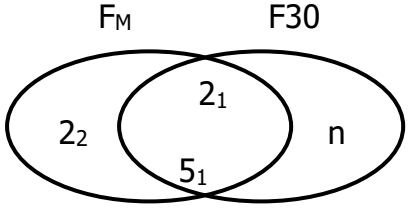


a) Find the value of a. (2mks)

b) Work out the area of the figure above. (2mks)

c) Calculate the total distance round the figure above. (2mks)

30. The Venn diagram below represents the prime factors of two numbers. Use it to answer the questions that follow.



a) Find the value of n. (2mks)

b) Calculate the value of M. (2mks)

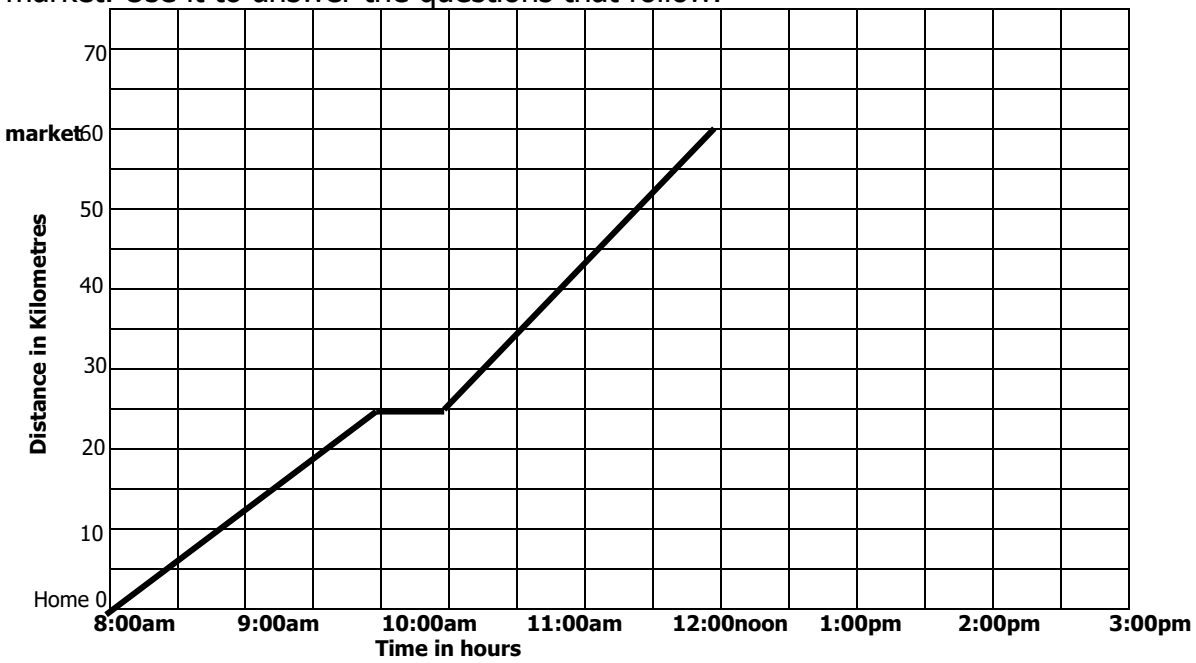
c) Work out the GCF of M and 30. (1mk)

31. John, Fatima and Daniel shared a certain amount of money in the ratio of 2:4:3 respectively. If Fatima got sh.60,000 more than John;

a) How much money did they share altogether? (4mks)

b) How much money did Daniel get? (1mk)

32. The travel graph below represents the journey of Mr. Okot from his home to the market. Use it to answer the questions that follow.



a) What is the scale on vertical axis? (1mk)

b) How far was Mr. Okot at 10:30am? (1mk)

c) At what time did Mr. Okot reach the market? (1mk)

d) Calculate the average speed of Mr. Okot for the whole journey. (2mks)

End