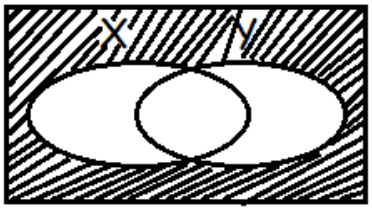
SECTION A (40 MARKS)
ANSWER ALL QUESTIONS IN THIS SECTION
Questions 1 to 20 carry two marks each

1. Work out:

2. Add: $101_{two} + 1\,1_{two}$

3. Solve: $0.5x = 2$

4. Describe the shaded part of the Venn diagram below.



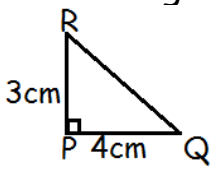
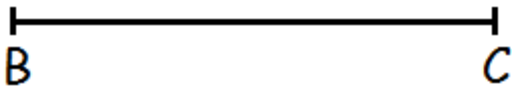
5. Write 44 in Roman numerals.

6. The school Night Watchman's salary of shs.100,000 was increased by 20%. What is his new salary?

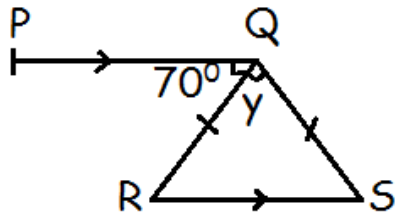
7. Given that Y = x + 1, complete the table below.

X	-3	
Y		5

8. The mean age of 3 children is 20. The total age of two of the children is 40 years. Find the age of the third child.

9. What is the next number in the sequence below? 1, 3, 6, 11, 18, 29, _____	10. Calculate the length of side QR in the Triangle PQR below. 
11. During the swearing in ceremony of the new prefects of Entebbe Junior School this year, all the newly elected prefects stood in a straight line such that the Head girl was tenth line from either side of the line. How many new prefects are in Entebbe Junior School this year?	
12. Using a ruler, pencil and a pair of compasses only, construct a Perpendicular line bisecting the line Segment BC below.  	
13. A mathematics P.L.E Mock paper lasting for $2\frac{1}{2}$ hours ended at 10:30am. At what time did the paper start?	
14. In the diagram below, line PQ is parallel to the RS and QRS is an Isosceles	

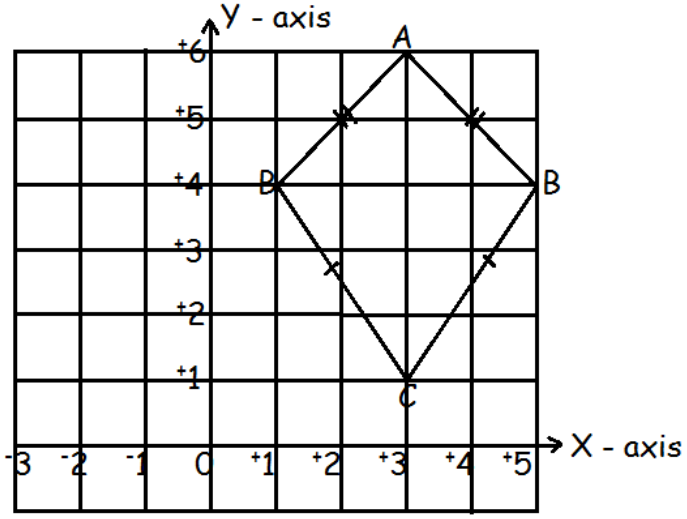
triangle. Study it carefully and use it to answer the question that follows.



a) Find the value of y.

15. 6 porters take 4 Mow the school compound. How many porters working at the same rate are needed to Mow the same school compound in 2 days?

On the graph below, ABCD is a kite. Use it for answering questions 16 and 17.



16. Find the area of the kite on the Graph above. (take 1 square = 1cm)

17. If A is joined to C, and B is joined to D, what are the co-ordinates of the meeting point of the two diagonals on the graph above?

18. The faces of a cube are numbered from 1 to 6. The cube is rolled once. What is the probability that a square number will show on the top face?

19. In a class of 30 pupils the ratio of girls to boys is 1:2. Find the number of boys.	20. What is the actual length on the ground that represents 6.5cm on the map if 1cm represents 10km?

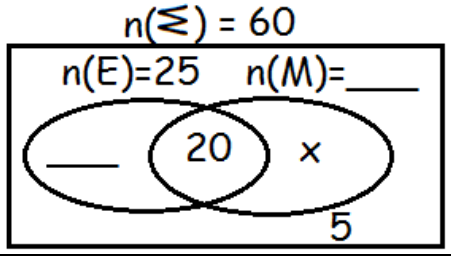
SECTION B

Answer all questions in section. Marks for each question are indicated in the brackets below.

21(a) What number has been expanded below 40,000 + 800 + 6? (2mks)	b) Write 2015 in standard form. (2mks)

22. In a school of 60 teachers, 25 teach English (E), x teach Mathematics only (M), 20 teach both English and Mathematics. 5 teach neither Mathematics nor English.

a) Use the information above to complete the Venn diagram below. (2mks)



b) Find the value of x. (2mks)	c) Find the number of teachers who teach only one subject. (1mk)

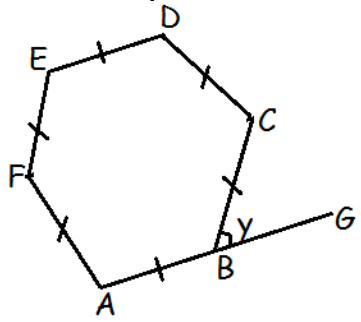
23. To make a school uniform of medium size for a school girl, a tailor needs:
- 2 metres of cloth at shs.5000 per metre
- 2 buttons at shs.300 per button
- School badge at shs.1000
- Thread at shs.400
- Tailor's labour at shs.4000

a) Find the total cost of the school uniform. (3mks)

b) If Sanita paid shs.12,000 for the school uniform, what percentage discount was she given? (2mks)

24. The figure below shows a regular six sided polygon ABCDEF. Study it and

answer the questions that follow.



a) What is the name of the polygon? (1mk)

b) Find the size of angle CBG marked y. (2mks)

c) Find the interior angle sum of the above regular polygon ABCDEF. (2mks)

25(a) Express 0.7272…..as rational number. (2mks)

b) Arrange the fractions below in order beginning with the biggest. (3mks)

$\frac{1}{4}, \frac{1}{6}, \frac{2}{3}$

26(a) Using a ruler, a pencil and a pair of compasses only:

i) Construct triangle XYZ such that line XY = 6cm, XZ = 5cm and angle ZXY = 60^0.

ii) Drop a perpendicular from Z to meet XY at P. (4mks)

b) Measure the line ZP cm. (1mk)

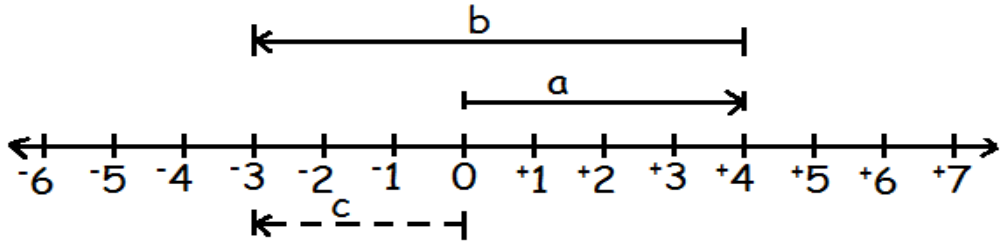
c) Using the measurement of the line ZP as the height, find the area of triangle XYZ. (2mks)

27. Mr. Ndagga left Entebbe town at 4:45p.m. He drove his car at a steady Speed of 80km per hour for $1\frac{1}{2}$ hours from Entebbe to his home.

a) At what time did Mr. Ndagga reach home? (Give your answer in a 24 hour clock. (2mks)

b) If the cost of petrol was shs.3,000 per litre and Mr. Ndagga's car used One litre of petrol to cover 30km. Find the cost of petrol for the journey from Entebbe to his home. (3mks)

28. Study the number line below and answer the questions that follow;



a) Write down the integers represented by letters: (3mks)

i) a

ii) b

iii) c

b) Write the mathematical statement shown on the above number line. (1mk)

29. Kiyingi is 4 times as old as his son. The difference between their ages is 30 years.

a) How old is the son? (3mks)

b) Solve the inequality:

$^{-}2y + 2 < 8$ (2mks)

30. In a mathematics test given to a class, the marks scored, frequency and total marks scored are shown in the table below.

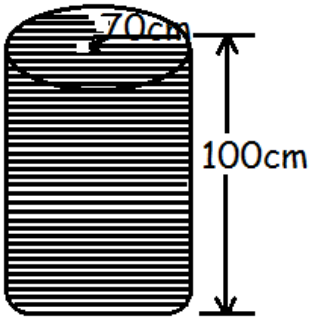
Marks scored	**Frequency**	**Total Marks**
54	3	162
64	2	
	3	210
85		340

a) Complete the above table. (3mks)

b) How many pupils did the test? (1mk)

c) Find the range. (1mk)

31. The diagram below shows a cylindrical tank found on the Mayor's Dairy farm. Its radius is 70cmHeight is 100cm. It is filled up with Milk every day. Study it carefully and answer the questions that follow.



a) How many litres of milk does the above tank hold when it is completely full? (3mks)
(Take $\pi = \frac{22}{7}$)

b) If each litre of milk is sold at shs.2,000, how much money does the Mayor get a day when all the milk in the tank is sold? (2mks)

32. The table below shows the performance of 120 candidates of Kiwafu Moslem School in P.L.E 2014.

Division	I	II	III
Degree	150^0	120^0	X^0

a) If the divisions in the above table are represented by angle sectors of a pie-chart. Find the value of X. (2mks)

b) Draw an accurate pie-chart to show the above information in the table using 4cm as the radius. (3mks)

********GOD BLESS********