BUDO JUNIOR SCHOOL

P.7 MATHEMATICS SET 2(A) TERM I, 2020.

Name: _____ **Stream:** _____

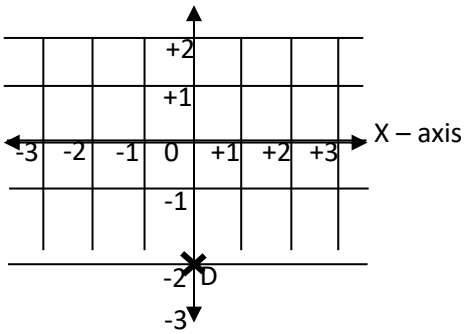
SECTION A (40 MARKS)

1. Multiply: 4 2
   x 4

2. Write 46 in Roman numerals.

3. Given that a=1 and b=3. Find the value of $\frac{a^2}{2b}$

Study the grid below and answer the question 4

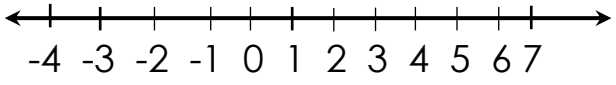


4. Write the coordinates of point D

5. Using a pair of compasses, a ruler and a sharp pencil only, construct an angle of 67½°

6. Simplify: $\frac{3.2 \times 2}{0.16}$

7. Workout $^{-}3 + {}^{+}5$ using a number line below.



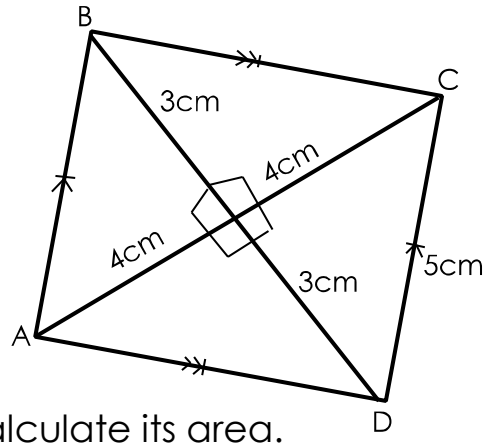
8. Mr. Male withdrew a bundle of ten thousand shilling notes from an automated teller machine (ATM) numbered consecutively from AB 436911 to AB 436935. How much money did he withdraw?

9. Find the next number in the sequence.
   1, 9, 25, 49, _____

10. Given that three pencils cost sh. 1800, how many pencils will Hassan buy with Sh. 3600?

11. Change 18Km/hr to m/sec.

12. The figure ABCD below is a rhombus of side 5cm.



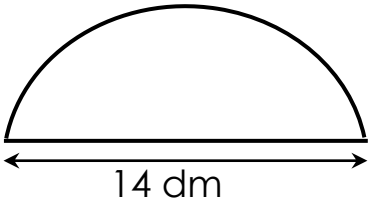
Calculate its area.

13. Electric poles planted 50 meters apart. Alice moved from the 4th pole to the 9th pole. Find the total distance she moved.

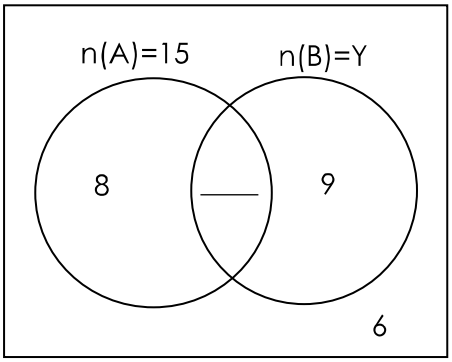
14. Today is Monday, what day of the week will it be 17 days from today?

15. Solve the inequality:- $3x+5<2$

16. Find the perimeter of the semi – circle below.



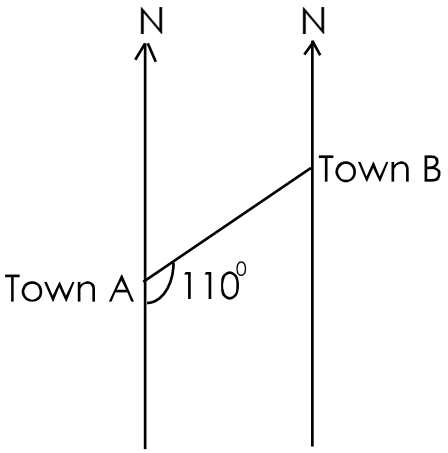
17. Use the Venn diagram below to find the value of Y.



18. In a class, the ratio of boys to girls is 3:7 respectively. If a prefect is chosen at random from the class, what is the probability that the prefect will be a boy?

19. A businessman deposited sh. 1,200,000 in a bank which gives a simple interest rate of 3% per year.
Find his interest after 1 ½ years.

20. In the figure below, find the bearing of town A from town B.



SECTION B (60 MARKS)

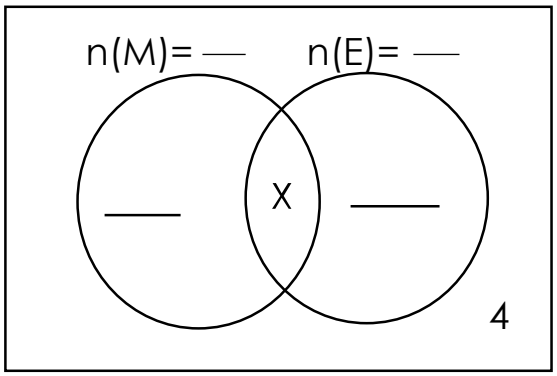
21. Find the value of x, If $2^x \div 2^4 = 2^2$ (2 marks)

b) Find the value of $5^{\circ} \times 5^2$. (1mark)

c) Find the smallest number of books which can exactly be shared by 6 and 15 pupils. (2 marks)

22. (a)In a class of 60 pupils, a half of the pupils in the class like English (E), 2x pupils like Mathematics (M) only, x pupils like both Mathematics and English and 4 pupils like none of the two subjects.
Complete the Venn diagram below. (2 marks)

n (ε)=60



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

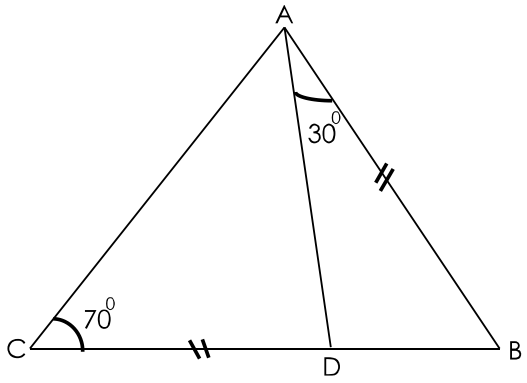
c) How many pupils like Mathematics (M)? (1 mark)

23. The average age of 4 boys is 14 years. The age of 3 of them is 12yrs, 15yrs and 13yrs.
a) Find the age of the fourth boy. (3marks)

b) Find the median age of the 4 boys. (2marks)

24. A water tank is $\frac{2}{3}$ full. When 3000 litres are drawn from the tank, it becomes $\frac{1}{4}$ full. How many litres can it hold when $\frac{5}{6}$ full? (5 marks)

25. In the figure below ABC is an Isosceles triangle with line AB=BC. Study the figure and answer questions about it.



a) Find the size of angle ABC. (2marks)

b) Find the size of angle CAD. (1mark)

c) Find the size of angle ADB. (2marks)

26. a) Solve: 3(2p-1) -4 (p+3)=1 (2 marks)

c) Ms. Sabano is 18 years' older than her daughter Jane. In ten years' time she will be twice as old as the daughter. How old is Ms. Sabano and Jane now? (3 marks)

27. The table below shows Mr. Mwanje's shopping list.

ITEM	**PRICE**	**AMOUNT**
3kg of sugar	Sh. 4000 per kg	sh._____
$1\frac{1}{2}$ kg of ghee	sh._____per kg	Sh. 7500
____litres of milk	Sh. 1000per litre	Sh._____
TOTAL EXPENDITURE		Sh. 22,000

a) Complete the shopping bill. (4mks)

b) If he paid sh. 18000 for all items, what discount was he offered? (1mark)

28. Using a ruler, a pencil and a pair of compasses, Construct a triangle PQR such that line PQ=7cm, Angle PQR=105^0 and angle QPR=30^0. (4marks)

b) Measure line QR. (1mark)

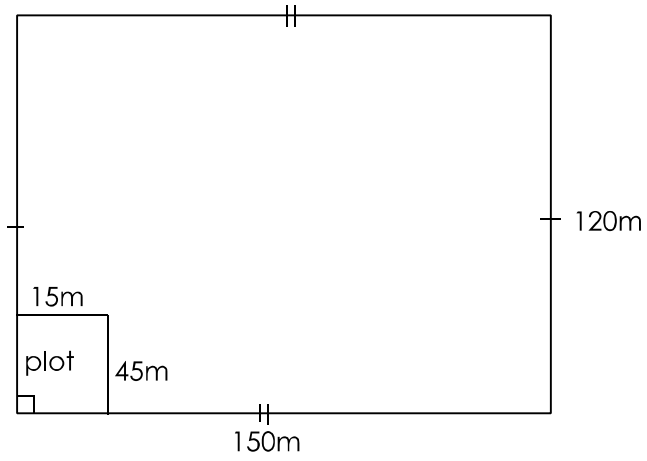
29. The table below shows how Mr. Ochieng divided books among his three children

Names of the children	Joel	Jack	James
No. of books	16	8	24

Using a radius of 3cm show the above information on an accurate pie chart.

(5 marks)

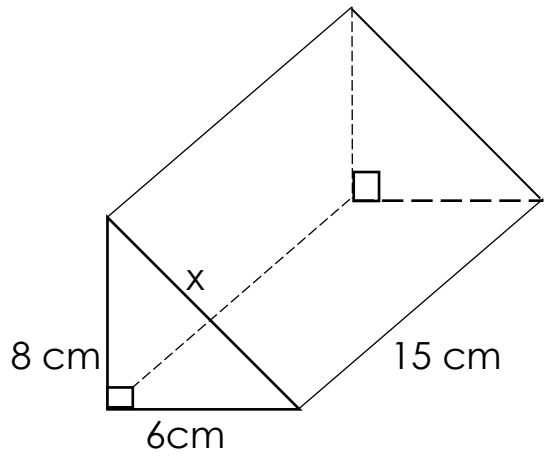
30. A trade bought a piece of land in Nansana Municipality measuring 150m by 120m. He is to divide the land into rectangular plots measuring 45m along the width and 15m along the length as shown in the figure below.

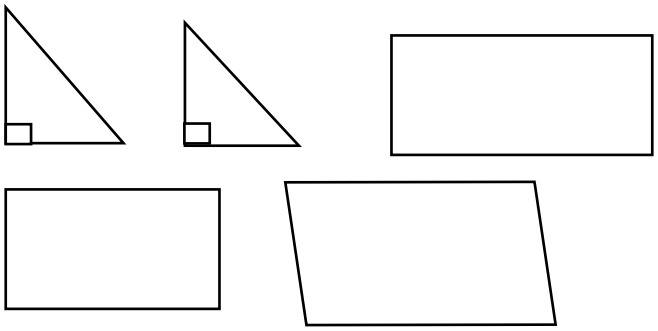


a) How many plots can he get from the land? (2marks)

b) If the remaining piece of land is for the road, find the area of the road. (3marks)

31. Find the total surface area of the triangular prism below by adding area of each face.(5 faces)





(6 marks)

32. Kasirye set off from home to town for shopping at 8:00 a.m and travelled a distance of 36km at an average speed of 18km/hr. He spent 30 minutes shopping and he straight away returned home at an average speed of 24km/hr. At what time did he get back home?

(4 marks)

END