NERDS EXAMINATIONS BOARD

PRIMARY LEAVING ITEM

P.L.E SERIES SET 1/4

MATHEMATICS

Time allowed: 2 hours 30 minutes

Random No.							Personal No.		

Candidate's Name: ……

Candidate's Signature: ……

District ID No.

Read the following instructions carefully:

1. The 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** answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using a **blue** or **black** ball point pen or ink.
6. Unnecessary changes in your work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do **not** fill anything in the table indicated:

"For Examiner's use only" and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No	**MARKS**	**EXR'S. No.**
01 – 05		
06–10		
11–15		
16 – 20		
21 – 22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

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Turn Over

SECTION A: (40 MARKS)

1. Work out: 7 8
   x 2

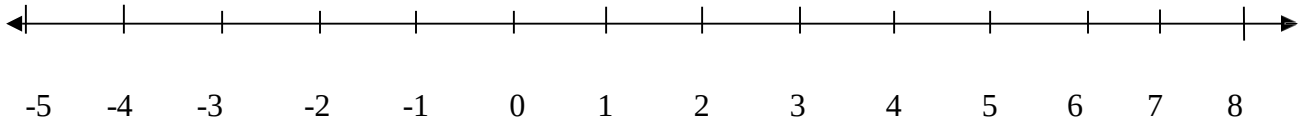
2. Write 147 in Roman numerals.

3. Given that set M = {1, 2, 4}, how many subsets are in set M?

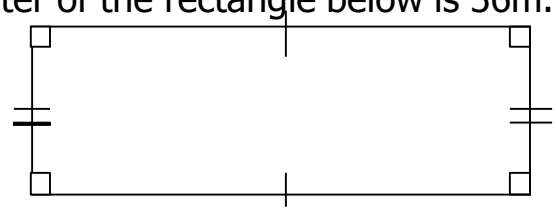
4. A school has a total of 400 pupils, if there are 240 girls in the school, What is the ratio of boys to girls?

5 . A baby slept at 8:35 p.m, if the baby slept for 2 hours and 45 minutes, What timedid the baby wake up?

6 . On the number line below, show 4x2.



7. The perimeter of the rectangle below is 36m. Find its width if the length is 12m.



12m

8 . The Lowest Common Multiple (L.C.M) of two numbers is 72 and their Greatest Common Factor (GCF) is 6, If one of the numbers is 24, Find the second number.

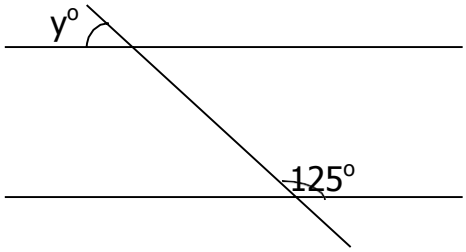
9 . Abdul bought the following number of goats during the week as follows.

Days of the week	MON	TUE	WED	THUR	FRI
Number of goats	3	2	5	7	8

Find the range.

10. A basket contains 3 rotten eggs and 6 good eggs , if the eggs in the basket are mixed, What is the probability of picking a rotten egg from the basket?

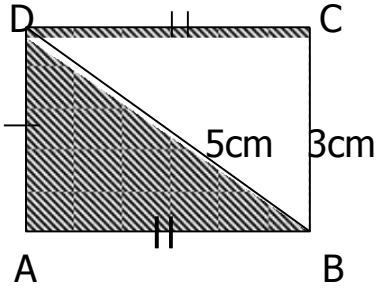
11. Find the value of y in the figure below.



12. When 0.3 of the pupils in a class are absent 32 pupils are present. Find the total number of pupils in the class.

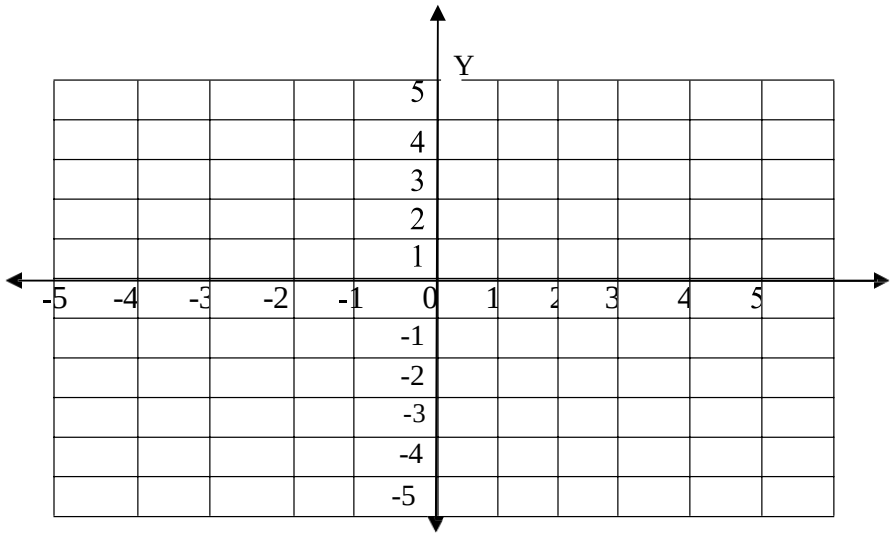
13. Find the value of $\frac{5a - (m - a)}{a}$ where a = 3, and m= 6.

14. Find the area of the shaded part in the figure below.



15. Find the next number in the following sequence 1, 8, 27, 64, __

16. On the graph below, mark point M (1, 4)



17. In a line of vehicles, a bus was the 7th from each end of the line, How many vehicles were in the line?

18. Four packets of mango juice cost sh. 12,000. What is the cost of seven similar packets?

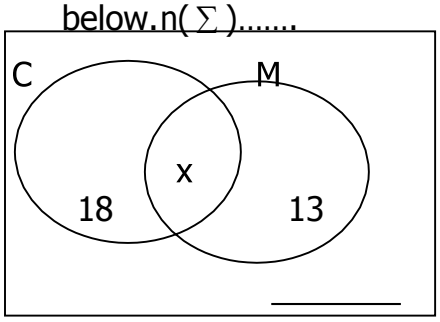
19. Using a pair of compasses, a pencil and a ruler only, construct an angle of 120^0 in the space below.

20. Given that a = $\frac{1}{3}$ and b= $\frac{1}{9}$. Find the value of $\frac{a}{b}$

SECTION B: (60 MARKS)

21. At a birthday Party attended by 40 guests, 18 ate chicken (C) only, 13 ate Meat (M) only, X guests ate both Chicken and Meat and 4 did not eat any of the twodishes.

(a) Use the information given above to complete the Venn diagram below.n(Σ)..... (2 marks)



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

(c) How many guests did not eat meat at all? (1 mark)

22. The rate at which a bank buys and sells United States dollars and Kenya shillings are given in the table.

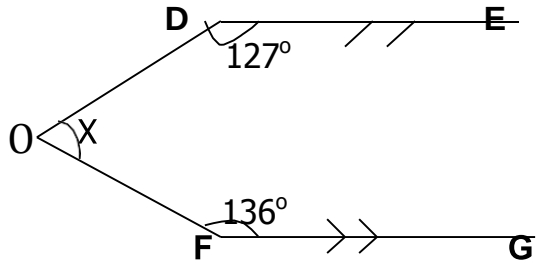
Currency	**Rate at which a bank buys.**	**Rate at which a bank sells.**
One U.S Dollar	Ugsh. 2800	Ugsh.2900
One Kenya shillings	Ugsh. 28	Ugsh. 30

a) If a trader has 300 dollars and 500 Kenya shillings, how much money in Uganda shillings can he get from the bank? (3 marks)

b) Peter has ugsh. 1,160, 000, how many U.S dollars can he get from the bank. (2 marks)

23. (a) The interior angle of a regular polygon is 36^o more than its exterior angle. What is the size of each exterior angle? (3 marks)

(b) In the figure below DE is parallel to FG, angle ODE = 127^o and angle OFG = 136^o, Calculate the size of angle X. (3 marks)



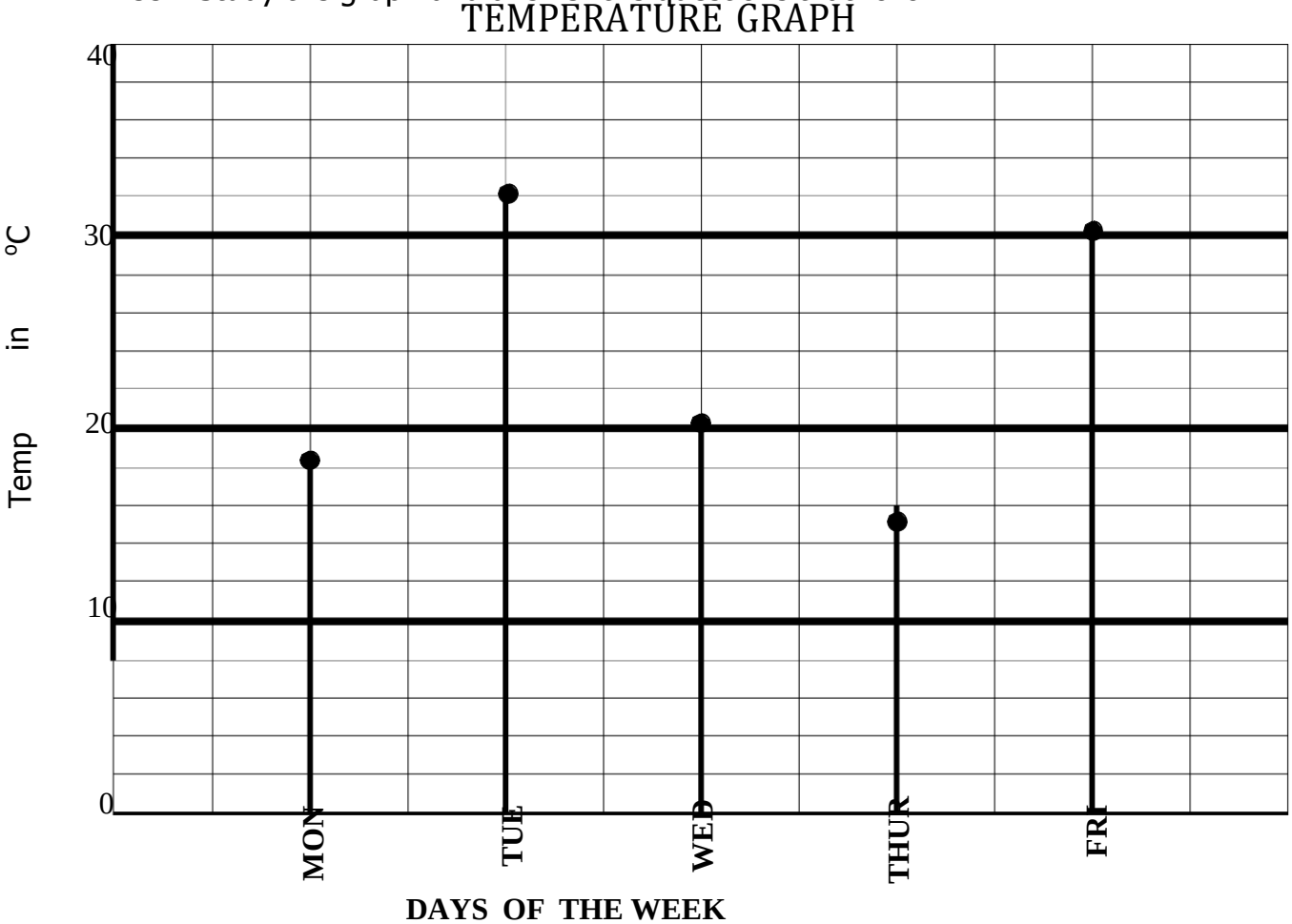
24. A primary school has a population of 1080 pupils of these , $\frac{3}{5}$ are girls and $\frac{1}{4}$ of the boys are in the upper primary classes.

(a) Find the number of boys in the upper primary classes. (3 marks)

(b) Express the number of boys in the lower primary classes as a percentage of the whole school population. (2 marks)

25. The sum of 4 consecutive integers is 18. Find these integers. (5 marks)

26. The line graph below shows the temperature of a certain place recorded over a week. Study the graph and answer the questions that follow.

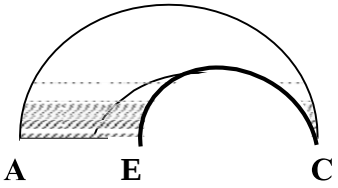


(a) On which day was the highest temperature recorded? (1mark)

(b) What was the lowest temperature recorded? (1mark)

(c) Find the mean temperature of the given day. (2marks)

27. In the diagram below, AC = 56 and EC is a half of AC. Find the area of theshaded part. (Take $\pi\frac{22}{7}$) (5 marks)



28a) Using a pair of compasses, a ruler and a pencil only, construct triangle ABC suchthat BC = 8cm, angle ABC= 120^0 and AB = 6cm. Measure angle BCA. (5 marks)

29. Betty was given sh. 20,000 to buy things to take to school and she bought thefollowing:
3 dozens of exercise books at sh. 2,800 per dozen.
4 bars of washing soap at sh. 900 per bar.
4 tablets of bathing soap at sh. 1200 per tablet.2 tubes of tooth paste at sh. 800 per tube.

a) How much money did she spend altogether? (5 marks)

(b) How much money did she remain with? (1 mark)

30. Pupils did a test and scored marks as shown in the table below.

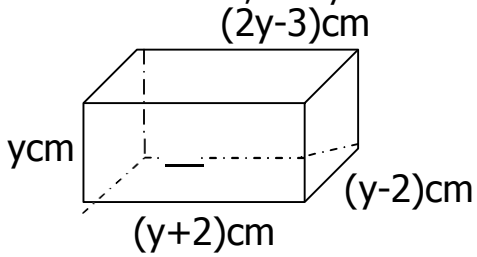
Marks	50	k	45	80
Number of pupils	2	6	3	4

(a) How many pupils did the test? (1 mark)

(b) Find the value of K if the mean mark was 61.(3 marks)

(c) What was the range of the marks? (1 mark)

31. The figure below is a cuboid, study and use it to answer the questions that follow.



(a) Find the value of y. (1 mark)

(b) Find the volume of the cuboid. (3 marks)

32a) Solve for x: $2(x + 1) - 3(2x - 1) = \bar{3}$ (3 marks)

(b) Find the value of $a^r \div a^x$, given that $a = 2$ and $x = 3$. (2marks)

END