MATHEMATICS PLE 2013

CANDIDATE'S INFORMATION

Index number : | | | | | | | | | |

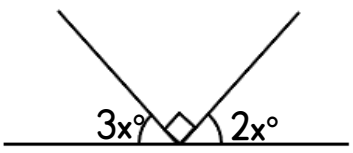
Name : _____

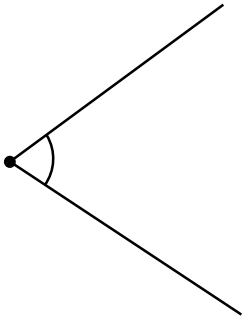
Signature : _____

School name : _____

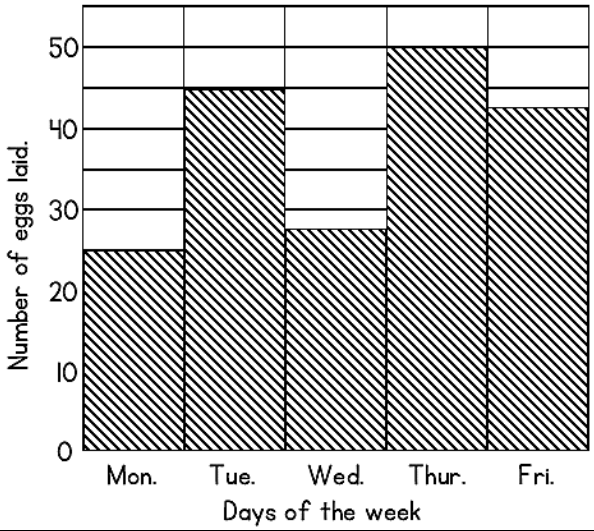
District name : _____

SECTION A: 40 MARKS

1	Workout: 22×4	2	What number has been expanded below? $20{,}000 + 600 + 8$
3	Write XCIX in Hindu-Arabic numerals.	4	Given that set P ={1 , 3 , 5 , 7 , 9} and set Q ={2 , 3 , 5 , 7}
5	Round off 12,962 to the nearest thousands.	6	Find the value of x in the diagram below. 

7	A pupil got a dozen of exercise books for shs. 6,000. He later sold each book at shs. 700. Calculate his profit.	8	Simplify: $4t - 2k + 5k - t$
9	Divide 6363 by 7	10	Workout: $\frac{2}{3} + \frac{1}{4}$
11	What morning time is shown on the clock face below? 	12	Simplify: $^{+}4 - {}^{+}6$
13	In a class, the ratio of girls to boys is 3:2. If there are 18 girls, how many pupils are in class?	14	Using a ruler, a pencil and pair of compasses only, bisect the angle given below. 

15	Workout: 2 – 6 (mod 7)	16	Given that $a = \frac{1}{3}$ and $b = \frac{1}{9}$. Find the value of $\frac{a}{b}$
17	The Lowest Common Multiple (LCM) of two numbers is 72 and their Greatest Common Factor (GCF) is 6. If one of the numbers is 24. Find the second number.	18	Medi has 30kg of sugar to be packed in $\frac{3}{4}$kg packets. How many packets will he get?
19	Trees were planted along a straight road 305 metres long. If the trees were planted 5 metres apart, how many trees were planted along the road?		
20	The bar graph shows the number of eggs laid by chicken in Opio's farm from Monday to Friday. Study and use it to complete the table.		



Days of the week	Mon.	Tue.	Wed.	Thur.	Fri.
No. of eggs laid	25	45	_____	50	_____

SECTION B: 60 MARKS

21 Musamali bought the items in the table below from a shop.

a. Complete the table.

Item	Price	Amount
_____ bars of soap	Shs. 2,200 per bar	Shs. 6,600
2 loaves of bread	Shs. _____ per loaf	Shs. 3,400
$2\frac{1}{2}$kg of salt	Shs. 800 per kg	Shs. _____
TOTAL EXPENDITURE		Shs. _____

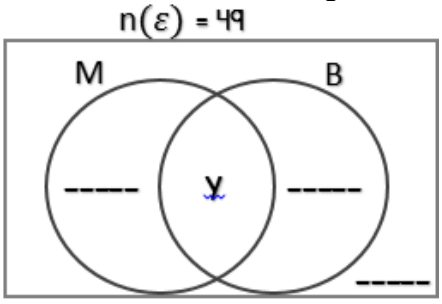
b. If Musamali paid shs. 10,800, what percentage discount was given?

22 a. Express 0.406 in standard form.

b. Write 72 as a product of its prime factors.

23 In a village of 49 farmers, 20 grow millet (M), 25 grow beans (B) and y grow both millet and beans. 3y farmers grow neither of the two food crops.

a. Use the information given above to complete.



b. Find the value of y.

a. How many farmers grow neither millet nor beans?

24 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?

b. Find the value of k if the mean mark was 61.

c. What was the range of the marks?

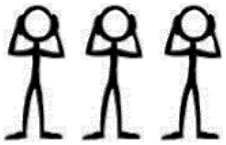
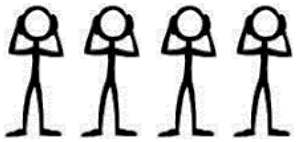
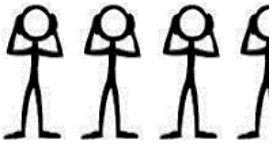
25 a. Solve the inequality: $9 \leq -3(y - 1)$

b. State the first two values of the solution set for the inequality.

26 a. A watch loses 5 seconds every one hour. How many minutes will it lose in two days?

b. Express 5m/sec in km/hr

27 The pictograph represents the number of patients who were admitted in a hospital on a certain day. Study and use it to answer questions that follow.

Men's ward	
Children's ward	
Women's ward	
Maternity ward	

Note:  rep. 10 patients.

a. How many patients were admitted in the hospital on that day?

b. Find the ratio of patients in the women's ward to those in the children's ward in its simplest form.

c. Express the number of patients in the men's ward as a percentage of the total number of patients.

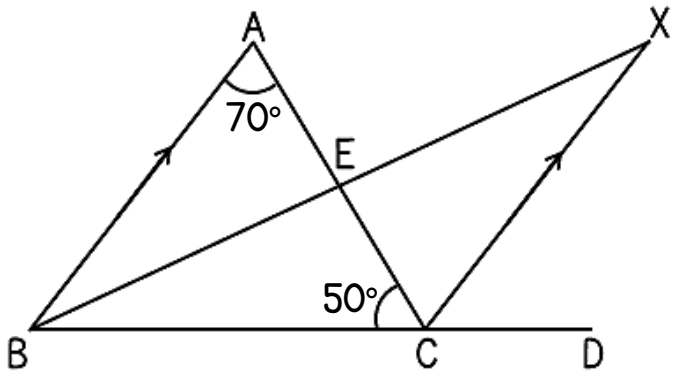
28 A tank was $\frac{2}{3}$ full of water. When $\frac{1}{4}$ of the water in the tank was drawn, 2,500 litres remained. Find the capacity of the tank when full.

29 Opoka rides a distance of 2.97km from his home to school on a bicycle. The wheel of the bicycle has a diameter of 63cm.

a. How many revolutions does the wheel make to cover the distance? $\left(use\ \pi = \frac{22}{7}\right)$

b. If Opoka makes 50 revolutions in one minute, how long does he take to reach the school?

30 In the figure below, BCD is a straight line. Line BX bisects angle ABC. Line AB is parallel to line XC. Angle BCE = 50° and angle BAC = 70°.

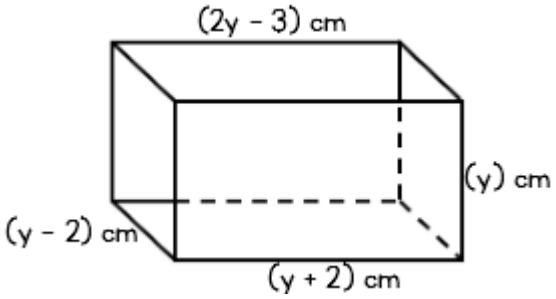


Find the sizes of angles;

a. CEX

b. DCX

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



a. Find the value of y.

b. Find the volume of the cuboid.

32 A tourist left town A and travelled 55km westwards to town B. He then turned on a bearing of 215° and travelled to town C which is a distance of 65km.

a. Draw a sketch diagram to show the tourist's journey.

b. Using a scale of 1cm to represent 10km, draw an accurate diagram to show the tourist's journey.

c. Find the shortest distance from town C to A in km.