

MATHEMATICS PLE 2011

CANDIDATE'S INFORMATION

Index number :

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Name : _____

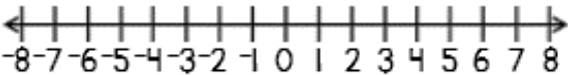
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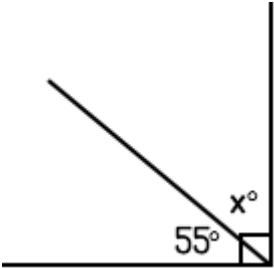

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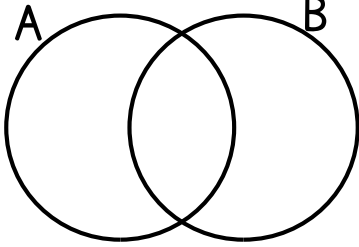
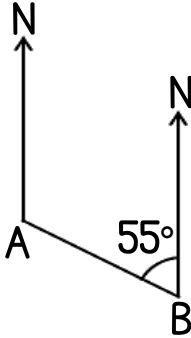
District name : _____

SECTION A: 40 MARKS

1	<p>Work out:</p> <div style="text-align: center; margin: 10px 0;"> $\begin{array}{r} 3 \quad 2 \\ \times \quad 3 \\ \hline \end{array}$ </div>	2	<p>Write in figures: thirty eight thousand, fifty.</p>
3	<p>Simplify: $6a - 4a + a$</p>	4	<p>Write 54 in Roman numerals.</p>
5	<p>Simplify: $+8 - -2$</p>	6	<p>Write down the fraction of the shaded part of the drawing below.</p> <div style="text-align: center; margin-top: 10px;">  </div>

7	Change 750 centimetres into metres.	8	Using a pair of compasses, a ruler and a pencil only, draw an angle of 60° in the space provided below.
9	Given set $C = \{2, 7, 10, 17\}$ and set $D = \{5, 6, 7, 11, 15\}$, find $C \cap D$	10	In a basket, 4 bad eggs are mixed up with 3 good eggs. If an egg is picked at random from the basket, what is the probability of picking a good egg?
11	Workout: $2.0 + 0.5$	12	Simplify: $\frac{5}{9} - \frac{2}{9}$
13	On the number line below, show 4×2 . 	14	Five pupils scored the following marks in a mathematics test: 55, 72, 61, 93 and 60. Find the median mark.

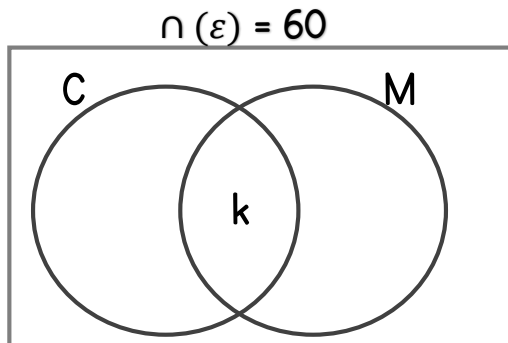
15	<p>In the diagram below, find the value of x.</p> 	16	<p>It started raining at 9:45a.m and stopped at 1:25p.m. For how long was it raining?</p>
17	<p>How many lines of folding symmetry does the figure below have?</p> 	18	<p>Find the next number in the following sequence.</p> <p>1, 8, 27, 64, -----</p>
19	<p>Given that $p = -4$, $q = 3$ and $c = -2$, find the value of $\frac{pq}{c}$</p>	20	<p>Solve: $2(3x - 6) = 24$</p>
21	<p>The circumference of a circle is 88cm. Find its radius. (use $\pi = \frac{22}{7}$)</p>	22	<p>Change 11011_{two} to base ten.</p>

23	<p>Workout:</p> $\begin{array}{r} 6 \quad 8 \quad 8 \quad 5 \\ + 8 \quad 4 \quad 3 \quad 7 \\ \hline \end{array}$	24	<p>In the Venn diagram below, shade the area $(A \cap B)$</p> 
25	<p>In a market, one buys 5 mangoes at sh. 1,500. How many similar mangoes does one buy with sh. 1,200?</p>	26	<p>In the figure below, find the bearing of town B from town A.</p> 
27	<p>A man drove a car steadily at a speed of 25 metres per second. Change this speed into kilometres per hour.</p>	28	<p>Arrange the following fractions in order beginning with the smallest: $\frac{2}{7}$, $\frac{2}{9}$ and $\frac{1}{3}$</p>
29	<p>If \oplus represents 1500 pupils in a school, find the number of pupils represented by \ominus</p>	30	<p>A farmer banked sh. 126,000 for 4 months at a simple interest rate of 8% per year. Find his interest.</p>

SECTION B: 60 MARKS

- 31 At a party attended by 60 pupils, 42 ate chicken (C), $(k + 8)$ ate meat (M) only, k pupils ate both chicken and meat while 6 did not eat any of the two items.

a. Use the information given above to complete the Venn diagram below.



b. Find the value of k .

c. If a pupil is picked at random, what is the probability that a pupil ate meat?

- 32 Fatuma went to the market and bought the items shown in the table below.

a. Complete the table.

Item	Quantity	Price	Amount
Eggs	15	Sh. 500 per egg	Sh. _____
Meat	_____ kg	Sh. 6,000 per kg	Sh. 15,000
Cooking oil	$\frac{1}{2}$ litre	Sh. _____ per liter	Sh. 2,000
Sugar	$1\frac{1}{2}$ kg	Sh. 3,000 per kg	Sh. _____
TOTAL EXPENDITURE			Sh. _____

b. If Fatuma went to the market with sh. 30,000, how much did she remain with?

- 33 a. Using a pair of compasses, a ruler and a pencil only, construct a triangle PQR in which PQ = 6cm, angle RPQ = 60° and angle PQR = 45° . Construct a perpendicular from R to meet PQ at Y.

b. Measure RY

- 34 A teacher recorded marks of P.7 pupils in a mathematics test as shown in the table below. Study it carefully and use it to answer questions that follow.

Marks	72	85	90	95	96
No. of pupils	4	12	1	4	5

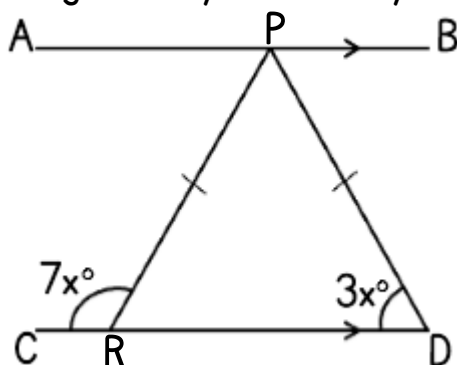
- a. Find the range of marks.
- b. What is the modal mark?
- c. Work out the mean mark of the pupils who scored above 85.

- 35 The rates at which the bank buys and sells United States dollars and Kenya shillings are given in the table below.

Currency	Rate at which a bank buys	Rate at which a bank sells
One U.S dollar	Ug. Sh. 2,800	Ug. Sh. 2,900
One Kenya shilling	Ug. Sh. 28	Ug. Sh. 30

- a. If a trader has 300 dollars and 500 Kenya shillings, how much money in Uganda shillings can he get from the bank?
- b. Peter has Ug. Sh. 160,000, how many U.S dollars can he get from the bank?

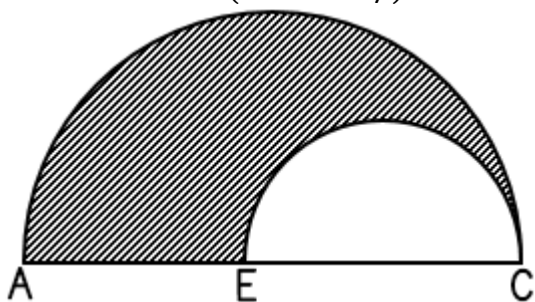
- 36 In the diagram below, line AB is parallel to line CD and PRD is an isosceles triangle. Study it carefully and use it to answer questions that follow.



- a. Find the value of x .

- b. Work out the size of angle CRP.

- 37 In the diagram below, $AC = 56\text{cm}$ and EC is half of AC . Find the area of the shaded part. (use $\pi = \frac{22}{7}$)



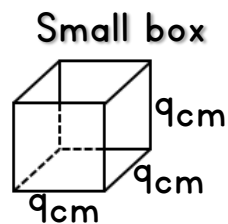
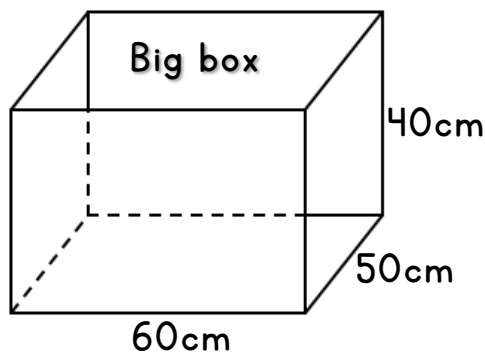
38	a. Solve: $6x - 9(x - 2) = 3$	b. Solve: $3 + 4m > 12 + 3m$
39	a. Workout: $\frac{0.28 \times 0.08}{1.4 \times 0.4}$	b. Workout: $1\frac{2}{5} \times 1\frac{1}{2} \div 3\frac{1}{2}$
40	<p>The pie chart below shows how Matata spends his monthly salary. Study it carefully and answer questions that follow.</p> <div data-bbox="231 1288 614 1657"> </div> <p>a. Find the value of y.</p> <p>b. If he spends sh. 36,000 on clothing, how much does he earn per month?</p> <p>c. How much more money does he spend on food than he saves?</p>	

41 a. What is the place value of the digit 4 in the number 340017?

b. Simplify: $\frac{b^3 \times b^5}{b^2 \times b^4}$

c. Expand 789 using powers of 10.

42 The diagram below shows a big box 60cm long, 50cm wide 40cm high and a small box 9cm long, 9cm wide and 9cm high. Study it carefully and answer the questions that follow.



If such small boxes are to be packed into the big box,

a. find the number of small boxes that will be packed in the first layer of the big box.

b. how many layers will fill the big box?

c. how many small boxes will fill the big box?