

MATHEMATICS PLE 2012

CANDIDATE'S INFORMATION

Index number :

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Name :

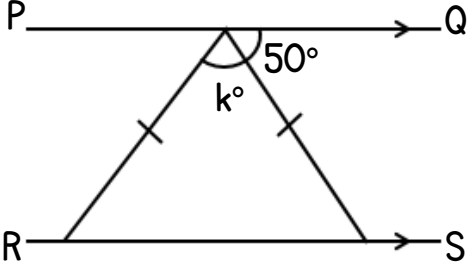
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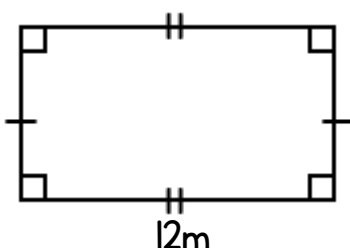
School name :

District name :

SECTION A: 40 MARKS

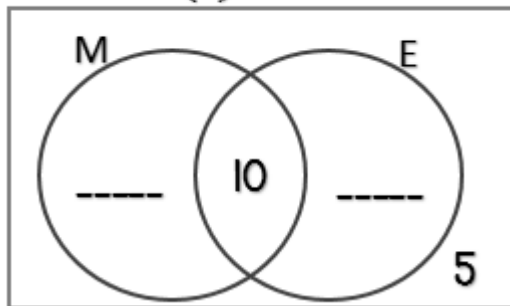
1	Workout: $87 - 65$	2	Write in words: 55,001
3	Simplify: $-6 - -4$	4	Solve: $\frac{2}{5}m = 4$
5	Given that set $Q = \{\text{all prime numbers less than } 10\}$. Find $n(Q)$.	6	Workout: $3\frac{3}{4} \div 1\frac{1}{2}$

7	<p>In the diagram below, find the value of k.</p> 	8	Find the value of: $2^4 + 3^0$
9	A debate which took $1\frac{1}{4}$ hours ended at 4:10p.m. At what time did it start?	10	Find the Greatest Common Factor (GCF) of 18 and 24.
11	Using a pair of compasses, a ruler and a pencil only, construct an angle of 120° in the space provided below.	12	Write 0.08 as a fraction in its simplest form.

13	<p>The perimeter of the rectangle below is 36m. Find its width if its length is 12m.</p> <div></div>	14	<p>Workout:</p> <div>$\begin{array}{r} 2 \quad 6 \quad 8 \\ \times \quad 2 \quad 5 \\ \hline \end{array}$</div>														
15	<p>Given that $k = 2$ and $p = -3$, find the value of $3k + 2p$</p>	16	<p>A gate keeper's salary was increased from sh. 50,000 to sh. 60,000. Find the percentage increase.</p>														
17	<p>The table below shows the goals scored by some teams in the netball competition. Use it to answer question 17.</p> <table><tr><td>Goals</td><td>25</td><td>20</td><td>15</td><td>12</td><td>30</td><td>10</td></tr><tr><td>Teams</td><td>2</td><td>1</td><td>3</td><td>4</td><td>3</td><td>5</td></tr></table> <p>How many teams scored less than 20 goals?</p>	Goals	25	20	15	12	30	10	Teams	2	1	3	4	3	5	18	<p>Find the square root of $3\frac{1}{16}$</p>
Goals	25	20	15	12	30	10											
Teams	2	1	3	4	3	5											
19	<p>The number of subsets in set A is 16. How many elements are in set A?</p>	20	<p>A bus covered a distance of 280km in 3 hours and 30 minutes. What was its average speed?</p>														

SECTION B: 60 MARKS

- 21 In a class of 60 pupils, 30 like English (E), y like mathematics (M) only, 10 like both subjects and 5 do not like any of the two subjects.
- a. Use the information given above to complete the Venn diagram below.
- b. Find the value of y .



- a. How many pupils like Mathematics altogether?

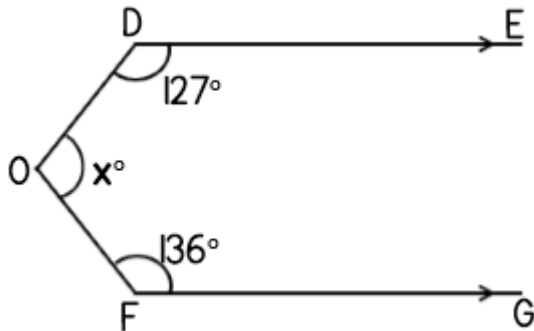
- 22 a. Using a ruler, a pair of compasses and a pencil only, construct a triangle ABC where line $AB = 6.4\text{cm}$, angle $CAB = 60^\circ$ and angle $ABC = 75^\circ$.

- b. Measure the length BC.

23	<p>Asiimwe bought the following items from a shop.</p> <p>3 bars of soap at sh. 1,200 per bar.</p> <p>$1\frac{1}{2}$ kg of sugar at sh. 3,000 per kg.</p> <p>$\frac{1}{2}$ kg of salt at sh. 1,000 per kg.</p> <p>a. What was his total expenditure?</p> <p>b. If he had sh. 10,000, how much money did he remain with?</p>	
24	<p>A cylindrical tin of radius 7cm contains 3080 cm^3 of cooking oil.</p> <p>a. Joan used 2156 cm^3 of the cooking oil. What is the height of the cooking oil remaining in the tin? (use $\pi = \frac{22}{7}$)</p> <p>b. Joan poured the remaining cooking oil into a rectangular tin with base area 77 cm^2. What was the height of the oil in the tin?</p>	
25	<p>a. Solve: $14p + 4 = 11$</p>	<p>b. Solve the inequality:</p> $3x + 4 > x + 8$

26 a. The interior angle of a regular polygon is 36° more than its exterior angle. What is the size of each exterior angle?

b. In the figure below, DE is parallel to FG, angle ODE = 127° and angle OFG = 136° . Calculate the size of angle x.

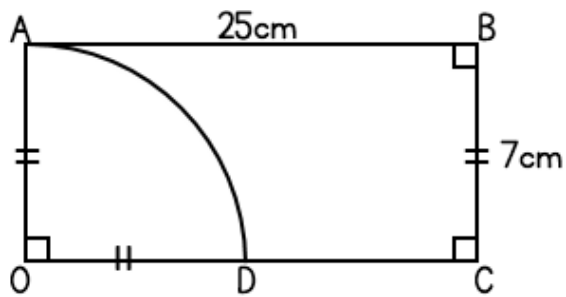


27 In Jumbo primary school, $\frac{1}{4}$ of the pupils in P.7 like science, $\frac{2}{3}$ of the remainder like Mathematics. The rest of the pupils like English. If those who like English are 33, find the total number of pupils in P.7.

28 a. Change 13_{ten} to base two.

b. Find the number which has been expanded below.
 $(5 \times 10^5) + (4 \times 10^3) + (9 \times 10^0)$

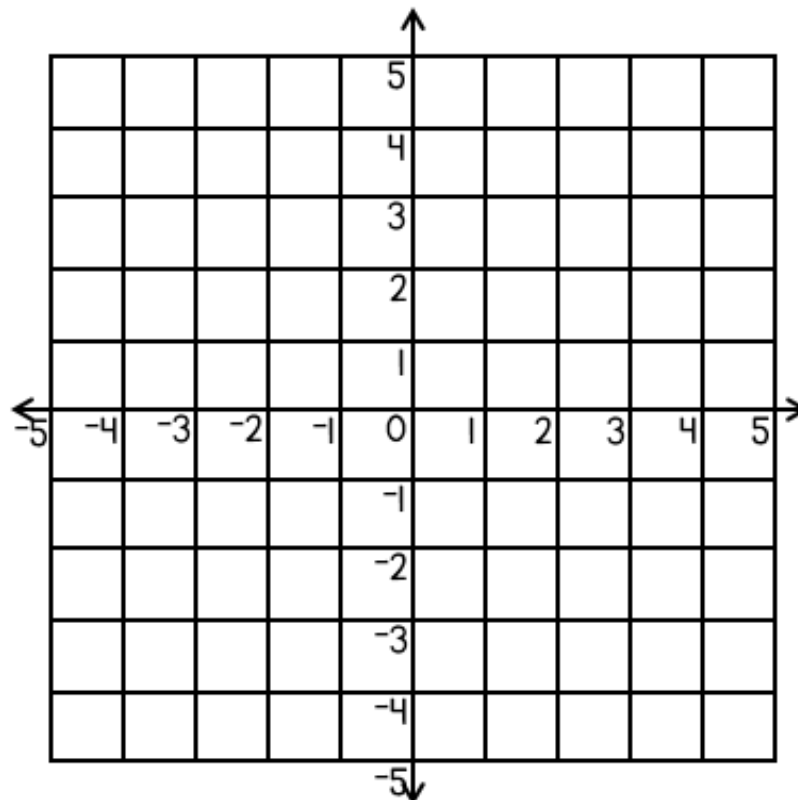
- 29 Carefully study the diagram below and use it to answer the questions that follow. Line $AB = OC$ and $AO = OD$.



- a. Find the length of arc AD? (use $\pi = \frac{22}{7}$)

- b. Work out the perimeter of ABCDA

- 30 a. On the graph below, plot the points $A(-2, +3)$, $B(+5, +3)$, $C(-2, -1)$ and $D(+1, -1)$.

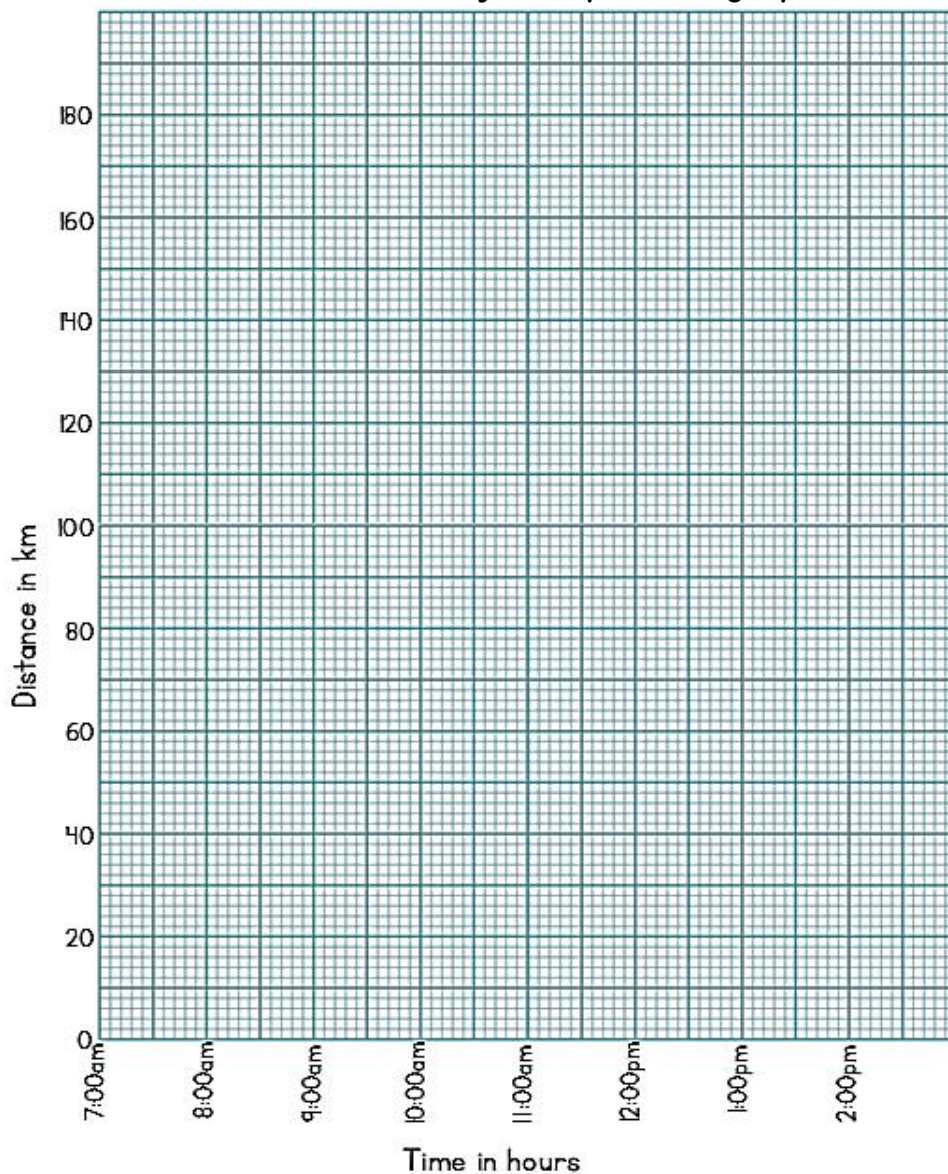


- b. Join A to B, B to D, D to C and C to A.
c. Name the quadrilateral formed after joining the points.

- 31 A man's salary was increased by 30% to sh. 312,000 per month.
- a. What was the man's monthly salary before the increment?

- b. If 5% of his new salary is subtracted as tax, what was his final salary?

- 32 Okidi left Kampala at 7:00am driving a lorry at average speed of 40km/hr for 2 hours to Jinja. He rested for one hour at Jinja then continued to Tororo at an average speed of 50km/hr for another 2 hours.
- a. Use the information to show Okidi's journey on the graph below.



- b. Calculate Okidi's average speed for the whole journey.