

MATHEMATICS PLE 2014

CANDIDATE'S INFORMATION

Index number :

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Name :

Signature :

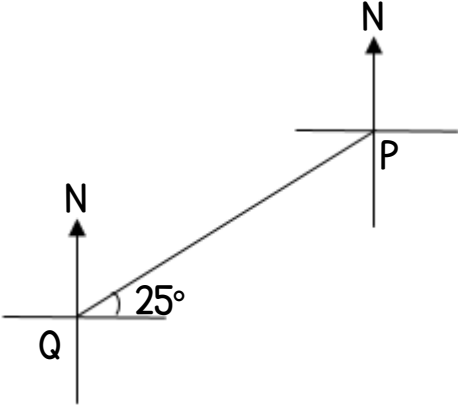
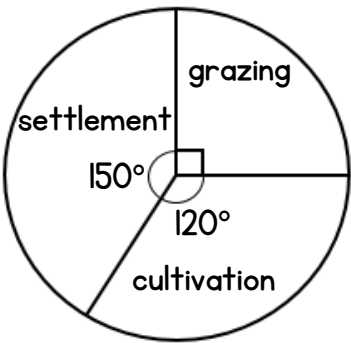
School name :

District name :

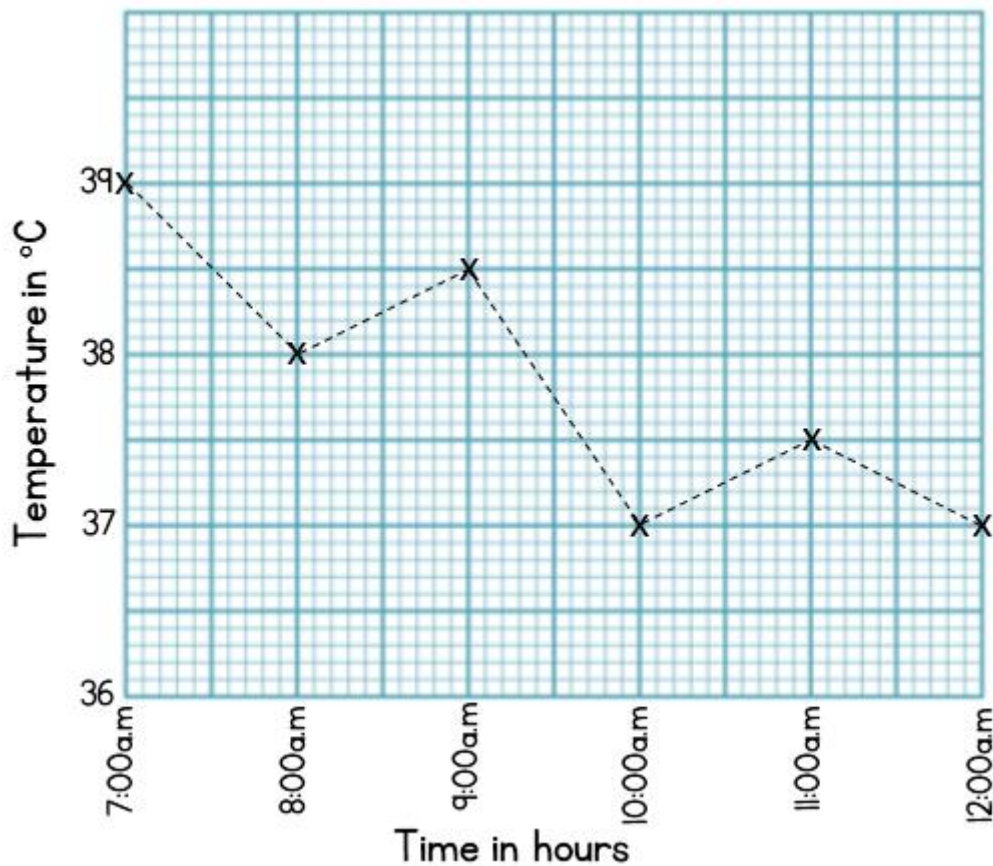
SECTION A: 40 MARKS

1	Workout: $14 + 53$	2	Write 99,040 in words.
3	Given that $K = \{1, 2, 3, 4, 5\}$ and $M = \{2, 4, 6, 8\}$. Find $n(K \cup M)$.	4	Workout: $\frac{1}{6} \times \frac{3}{4}$
5	Simplify: $5ab - 2xy - ab + 7xy$	6	Find the next number in the sequence: 49, 47, 44, 39, _____

7	Using a protractor, draw an angle of 55° in the space below.	8	A lady bought a dress at sh. 55,000. She later sold it and made a loss of sh. 15,000. At what price did she sell the dress?
9	The mass of a packet of coffee is $\frac{1}{8}$ kg. What is this mass in grams?	10	Workout: <div style="text-align: right; margin-right: 50px;"> 4 2 five — 3 five <div style="border: 1px solid black; width: 150px; height: 25px; margin-top: 5px;"></div> </div>
11	Given that $n = 3$ and $r = -2$, evaluate $\frac{2n+r}{r}$	12	Today Monday, the workers on the farm are paid their salary. What day of the week will the workers' next pay be 30 days from today.
13	Write the number whose scientific notation is 9.85×10^3	14	A cyclist covers 70km in $2\frac{1}{2}$ hours. How long will he take to cover 21km at the same speed?

15	<p>Find the bearing of point Q from point P in the figure below.</p> 	<p>16 A man got a loan of shs. 120,000 from a Savings and Credit Cooperative Society at a simple interest rate of 8% per annum. He paid an interest of shs. 7,200 on the loan. How long was the loan?</p>
17	<p>Solve: $2^{3n} \div 2^n = 2^4$</p>	<p>18 The time on the 12-hour clock is: a quarter to 4 o'clock in the afternoon. Express this time in the 24-hour clock.</p>
19	<p>The pie chart below shows how a farmer uses her land. Use it to answer questions that follow.</p>  <p>Calculate the size of her land if she uses 72 acres for cultivation.</p>	

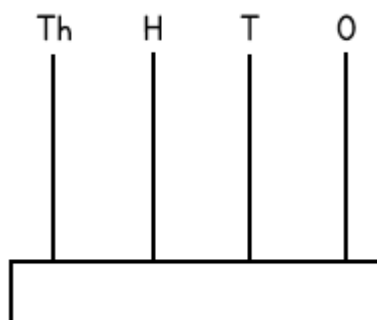
- 20 The graph below shows the temperature of a patient in a hospital taken from 7:00a.m to 12:00 noon in a day. Use it to answer questions that follow



What times of the day was the temperature of the patient the same?

SECTION B: 60 MARKS

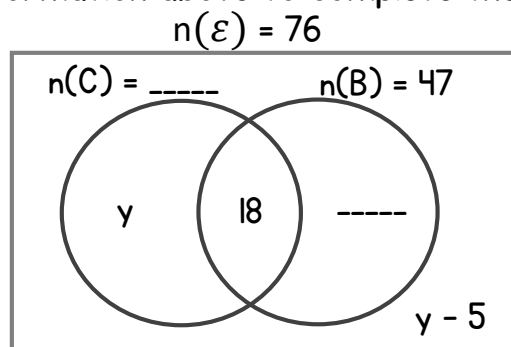
- 21 a. Draw beads to show the number 4,502 on the abacus below.



- b. Find the sum of the values of 3 and 7 in the number 3,678.

- 22 A birthday party attended by 76 guests, 47 were served with beef (B) and 18 were served with both beef and chicken (C). y guests were served with chicken only while $(y - 5)$ were not served with any of the two dishes.

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



b. Find the value of y

c. Find the number of guests who were served with chicken.

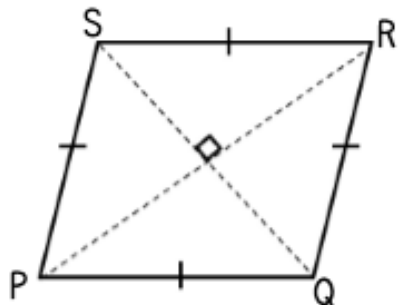
- 23 a. Using a ruler, pencil and a pair of compasses only;

i. Construct a parallelogram ABCD such that line $AB = 7\text{cm}$, $BC = 5\text{cm}$ and angle $ABC = 120^\circ$

ii. Drop a perpendicular from D to meet AB at M.

b. Measure the line DM in cm.

- 24 The diagram below shows a rhombus PQRS. The diagonals $PR = 24\text{cm}$ and $QS = 10\text{cm}$.



a. Calculate the area of the rhombus.

b. Find the perimeter of the rhombus.

25 a. Workout: $\frac{3.9 + 3.6}{0.06 \times 0.6}$

b. Simplify: $3\frac{1}{2} \div 2\frac{1}{2} \times 2\frac{2}{5}$

- 26 Apio bought the following items from a market.
- 2 kg of rice at shs. 3,200 per kg.
 - $1\frac{1}{2}$ kg of meat at shs. 8,000 per kg.
 - 500g of salt at shs. 1,400 per kg.
 - A sacket of cooking oil at shs. 1,750.
- How much money did she spend altogether?

- 27 The timetable below shows how a pupil spent one Saturday. Use it to answer questions that follow.

Time	Activity
7:00am - 10:30am	digging
10:45am - 12:45pm	washing
1:00pm - 2:45pm	lunch and resting
3:00pm - 4:30pm	playing
5:00pm - 7:30pm	reading

- a. How long did he take playing?
- b. If he dug his maize garden at a rate of 2 rows in every 30 minutes, find the number of rows he dug that day.

- 28 The exchange rate for Kenya shillings (Ksh.) to Uganda shillings (Ush.) and the United States Dollars (US\$) to Uganda shillings are shown below.

Ksh 1 = Ug.sh 30

US\$ 1 = Ug.sh 2,580

- a. How many United States dollars will one get from 21,500 Kenya shillings?
- b. If the cost of a new bicycle is 90 United States dollars, How much would this be in Uganda Shillings?

29	At a Kampala bus park, buses traveling to Arua and Mbarara leave after every 40 minutes and 50 minutes respectively. The first buses to the two towns leave together at 6:00am. At what time will the two buses leave Kampala together again?
30	<p>a. The mean of the numbers 7 , 9 , 5 , $x + 2$ and 6 is 8. Find the value of x.</p> <p>b. In a bag there are 15 pens. Out of these, 4 are red and the rest are blue. What is the probability that a pen picked at random from the bag is blue?</p>
31	<p>Nanziri has two children, a son and a daughter. If the son is half her age, the daughter a third her age and the total age of the two children is 30 years.</p> <p>a. Find Nanziri's age.</p> <p>b. How old is the daughter?</p>

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A school wants to fence a circular flower garden of diameter 14cm using poles placed at intervals of 80cm.

- a. How many poles are needed to fence the flower garden? (use $\pi = \frac{22}{7}$)
- b. If each pole costs shs. 3,000, how much money will the school spend on the poles?