MATHEMATICS PLE 2010

CANDIDATE'S INFORMATION

Index number :

Name   : _____
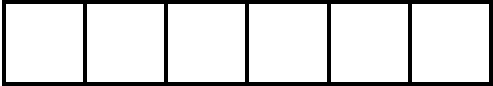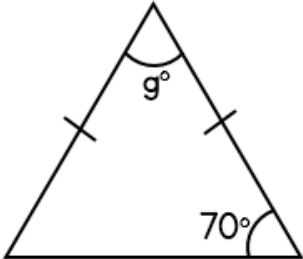
Signature   : _____
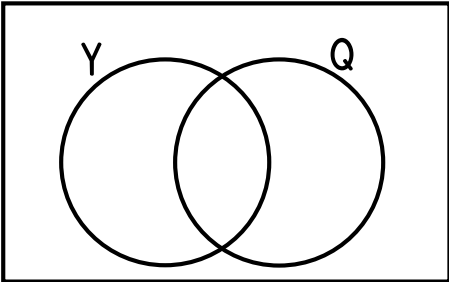
School name : _____
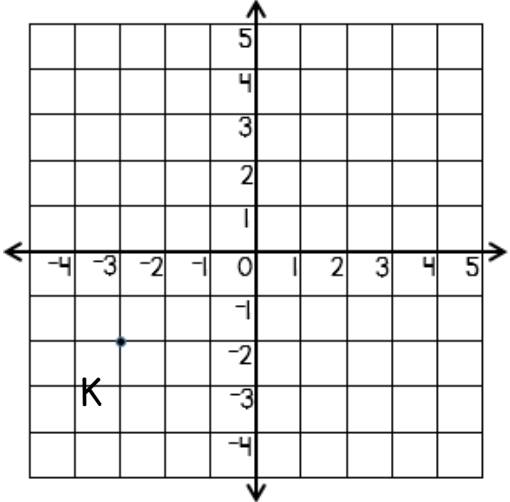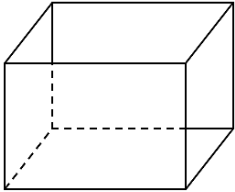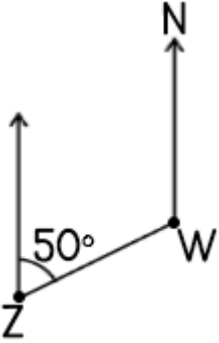
District name : _____

SECTION A: 40 MARKS

1 Workout: $10 \div 2$	**2** Simplify: $2x + 3x$
3 Write in figures: Sixty one thousand.	**4** Given set A = {a , b , f , k} and set B = {a , c , k}, find n(AUB)
5 Simplify: $^-5 + ^-2$	**6** Write 49 in Roman numerals.

7	Shade $\frac{1}{2}$ of the drawing below.	8	Using a pair of compasses, a ruler and a pencil only, bisect the line below.

9	What is the value of 5 in the figure 65011?	10	Change 2.5 metres to centimetres.

11	Cards labelled 1 to 5 are folded, put in a bucket and mixed up. What is the probability of picking a card having a prime number?	12	Seven children had the following ages: 7 , 3 , 6 , 2 , 5 , 1 and 4. Find the mean age.

13	In the triangle below, find the size of angle g in degrees.	14	Workout:

Workout:

```
  1    6    5
x           4
┌──────────────┐
│              │
└──────────────┘
```

15	Given that $a = {}^-3$ and $b = 4$, find the value of $2a + 2b$	16	Find the next number in the sequence: $23 , 19 , 16 , 14 , _____$
17	A fifty minute test started at 9:50a.m. At what time did it end?	18	Solve: $4p - 4 = 20$
19	In a line of vehicles, a bus was the 7th from each end of the line. How many vehicles were in the line?	20	In the Venn diagram below, shade the area $(Y \cup Q)$
21	Workout: $\dfrac{5}{12} - \dfrac{5}{9}$	22	Change 11_{ten} to base two.

23	In the diagram below, find the co-ordinates of point K.	24	A boy ran a distance of 6km in 45 minutes. What was his speed in kilometres per hour?

25	Arrange the following decimals in order beginning from the smallest: 0.11 , 0.5 and 0.03	26	How many edges does the figure below have?

27	Workout: 6702 − 4865	28	Four packets of mango juice cost sh. 2,000. What is the cost of seven similar packets?

29	In a P.7 class, $\frac{2}{5}$ of the pupils are girls. If there are 150 pupils in class, find the number of boys.	30	In the diagram below, find the bearing of town Z from town W.

SECTION B: 60 MARKS

31 | In a class party of 51 pupils, 28 drank mirinda (M), 29 drank pepsi (P), y drank both mirinda and pepsi while 6 did not drink any of the two sodas.

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

b. Find the value of y.

$n(\varepsilon) = 51$

M   P

------ (y) ------

6
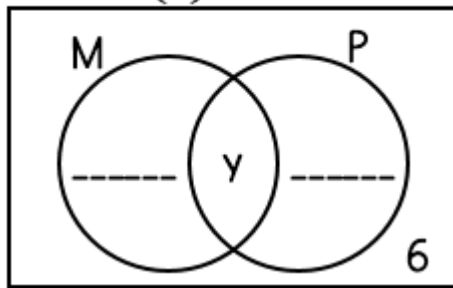
c. Find the number of pupils who drank one type of soda only.

32 | a. Using a ruler, a pencil and a pair of compasses only, construct a rectangle ABCD in which AB = 8cm and BC = 7cm.

b. Measure the length of diagonal AC.

c. Measure the angle BAC.

**33** The table below shows the arrival and departure time of a bus that travels from Kampala to Hoima daily.

Town	Arrival time	Departure time
Kampala		7:30 a.m
Busunju	8:10 a.m	8:30 a.m
Bukomero	9:30 a.m	9:45 a.m
Kiboga	10:15 a.m	10:40 a.m
Hoima	11:40 a.m	

a. At what time does the bus leave Kampala?

b. How long does the bus stay at Bukomero?

c. How long does the bus take to travel from Bukomero to Kiboga?

d. Find the total time taken by the bus to travel from Kampala to Hoima?

---

34 a. Solve: $2m + 3 = 18 - m$

b. Solve: $2(3x - 1) - 4(x - 1) = 4$

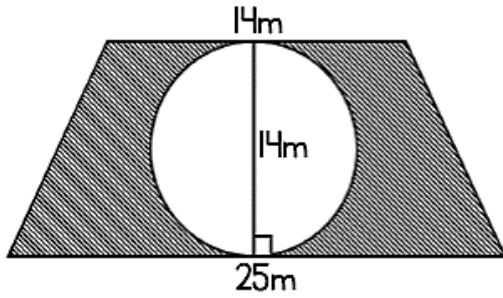| 35	In the diagram below, OP is parallel to QR. HKL is a triangle, angle HLR = 110° and angle SHP = 50°. Study it and answer questions that follow.
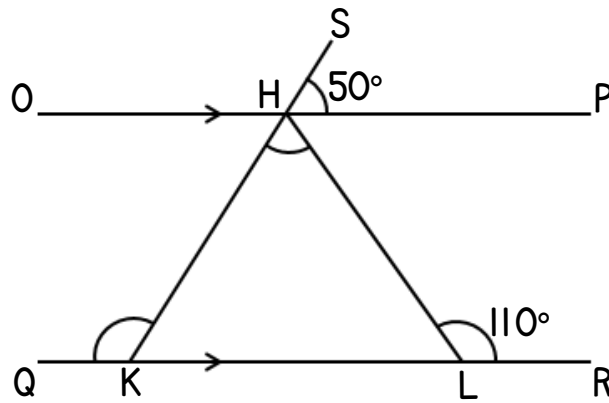
Find the size of;
    a. angle y.   b. angle m.

36	a. Find the number which has been expanded below. $(1 \times 10^4) + (3 \times 10^2) + (6 \times 10^0)$

b. Change 1011_{two} to base ten.

c. Find the value of x: $3 + 3 = x$ (finite 4)

| 37	Find the area of the shaded part in the diagram below. $\left(use\ \pi = \frac{22}{7}\right)$

14m
14m
25m

38	The mean of the scores 8 , 9 , 6 , 4 and x is 6.

    a. Find the value of x.

    b. What is the median score?

    c. Find the probability that a score picked at random is below the mean.

39	Makeba's car uses 8 litres of petrol for every 50km.

a. How much petrol does it need for a journey of 325km?

b. If one litre of petrol costs sh. 2,900, how much money will he spend on petrol needed to run the car for $1\frac{1}{2}$ hours at a speed of 50km per hour?

| 40 | The graph below shows the changes in body temperature of a patient in a hospital recorded after every two hours in a day. Use it to answer questions that follow. |

Time of the day
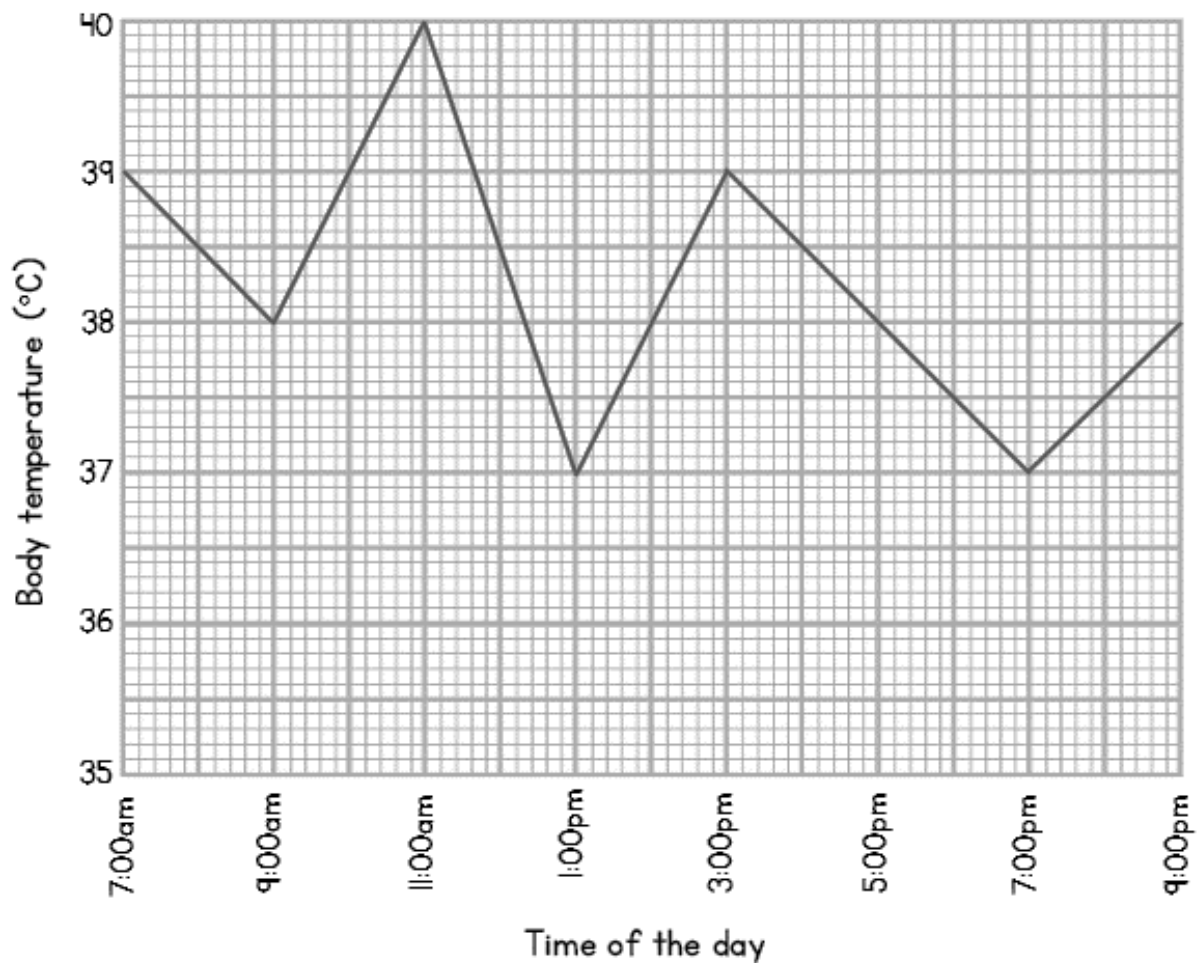
a. That was the highest temperature recorded?

b. Find the range in the recorded body temperature.

c. Workout the average body temperature of the patient from 3:00pm to 9:00pm.

41 A man spends $\frac{1}{3}$ of his salary on food, $\frac{1}{9}$ on clothing, $\frac{1}{6}$ on medical, $\frac{1}{18}$ on house rent and banks the rest which is shs.35,000.

    a. What fraction of his salary does he bank?

    b. How much money does he earn as salary?

42 Simplify:

    a. $n^2 \times n$

    b. $m^6 \div m^3$

    c. $\dfrac{a^2 \times a^5}{a^3}$