SECONDARY SCHOOLS ANNUAL EXAMINATIONS - 2001

Educational Assessment Unit - Education Division

FORM 1   **MATHEMATICS (MENTAL)**   **TIME: 15 minutes**
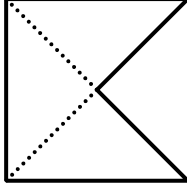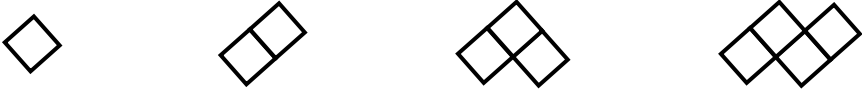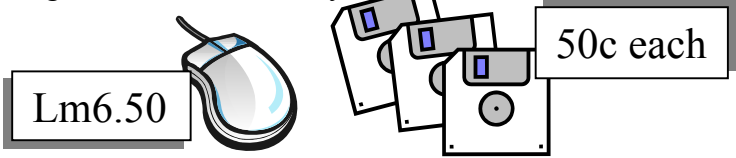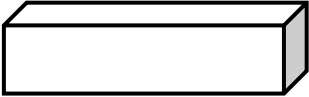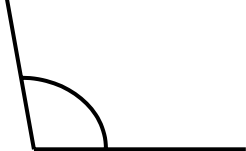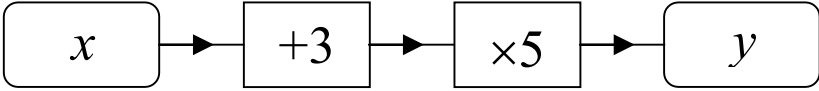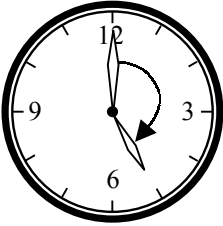
Name _____

Class _____

Mark

- **ANSWER ALL QUESTIONS.**
- **EACH QUESTION CARRIES 1 MARK.**
- **CALCULATORS, RULERS, PROTRACTORS AND OTHER MATHEMATICAL INSTRUMENTS ARE NOT ALLOWED.**
- **WRITE DOWN YOUR ANSWER ONLY IN THE SPACE PROVIDED.**

DO NOT WRITE IN THIS SPACE

QUESTION	ANSWER
1. Fill in the missing number to make **equivalent fractions**.	$$\frac{12}{18} = \frac{}{3}$$
2. What **percentage** of the square was **removed**?	
3. Draw the next arrangement of the following pattern.	
4. Write $\frac{1}{2}$ as a **decimal**.	
5. What change do I get from **Lm10** if I buy? Lm6.50 50c each	
6. How many **edges** does a cuboid have?	
7. The **size** of this angle is roughly: A) 60° B) 80° C) 100° D) 170°	
8. Look at the function machine. Find the value of y when x is **6**. x → +3 → ×5 → y	
9. How many **degrees** are there **between the hands** of the clock at exactly 5:00 o'clock?	
10. There are **24 sweets** in a packet. These sweets are **divided equally** among **3 children**. How many sweets does **each** child get?	

SECONDARY SCHOOLS ANNUAL EXAMINATIONS 2001

Educational Assessment Unit - Education Division

FORM 1	MATHEMATICS (Main Paper)	TIME: 1 h 45 min

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total Main	Mental	**Global Mark**
Mark																		

DO NOT WRITE ABOVE THIS LINE

Name _____   Class _____

CALCULATORS ARE NOT ALLOWED

ANSWER ALL QUESTIONS.

1. a)
$$3.49$$
$$5.28$$
$$+\ 7.09$$
_____

b)
$$418$$
$$\times\ 7$$
_____

c) The picture shows the headlines of a newspaper:

Lm98315 for Charity
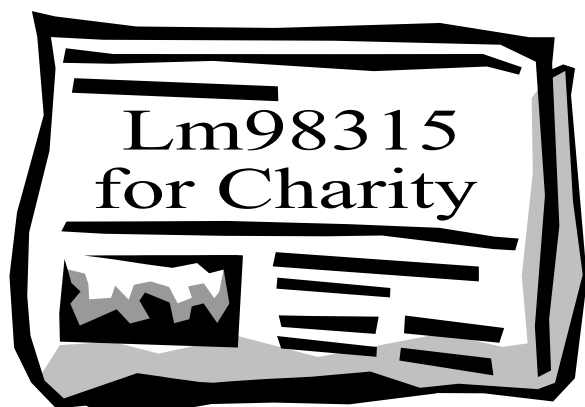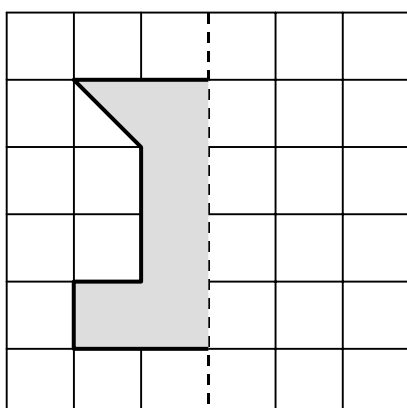
i) Write 98315 in **words**:

_____

_____

_____

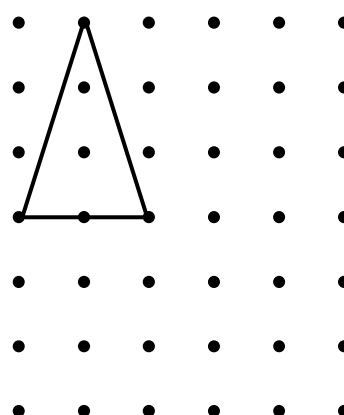ii) Write 98315 correct to the **nearest 1000**.

_____

4 marks

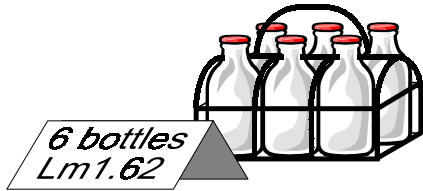2. a) The dotted line is a line of symmetry. Complete the figure:

b) Show **by drawing** if the shape tessellates or not.

4 marks

3. a) **6** bottles of milk cost **Lm1.62**.
        Find the cost of **1 bottle**.

        6 bottles Lm1.62

    b) Susan is playing a number game.

        My number is **more** than 7 but **less** than 17.

        It is a **multiple** of 3.

        It is also a **factor** of 18.

        What is number Susan is thinking of?
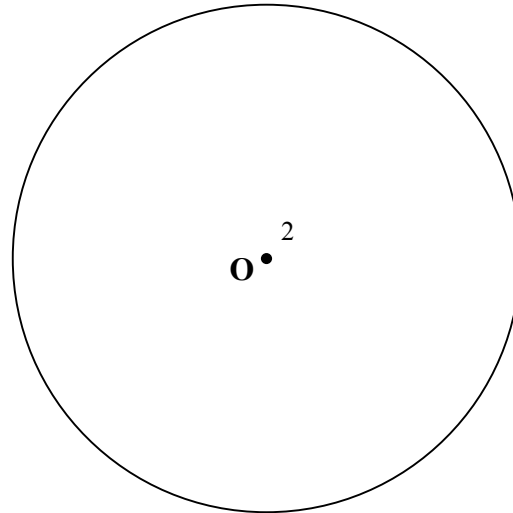
        4 marks

4. O is the centre of the circle.

    a) Draw a diameter.
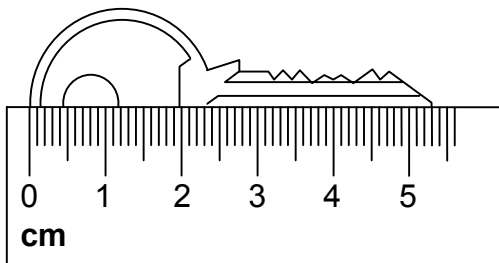
       Name the diameter AB.
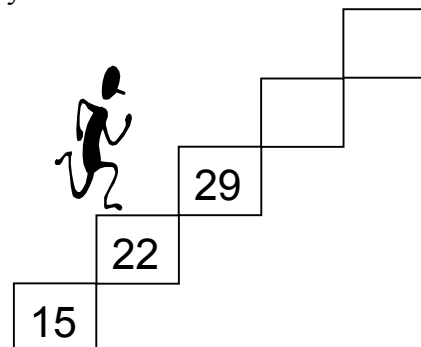
    b) Draw a chord.

       Name the chord PQ.

       O •²

       4 marks

5. a)

        0   1   2   3   4   5
        cm

        The **length** of the key is _____ cm.

    b) Fill in the empty squares to **complete** the series correctly.

        29

        22

        15

        4 marks

6. a) $270 \times 100 =$ _____.

    b) The **place value of 6** in 1638 is _____.

    c) 435.177 correct to **2 decimal places** is _____.

    d) 728 **cm** = _____ **m**.

    e) $\frac{1}{6}$ of 42 kg = _____ kg.

    f) Write 1.3, 1.03, 0.13 in order of size **smallest first**: _____, _____, _____.

        6 marks

7 a) Work out and give your answer as a mixed number:

$$\frac{4}{5} + \frac{3}{5}$$

b) Put $<$ or $>$ in the space to make the statement correct:

$$\frac{2}{3} \boxed{} \frac{3}{4}$$

<div align="right">6 marks</div>

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8. a) Complete: $\dfrac{3}{10} = \dfrac{}{100} = \boxed{}\,\%$

b) In a village of 15000 residents 30% are children.

   i) **How many children** are there?
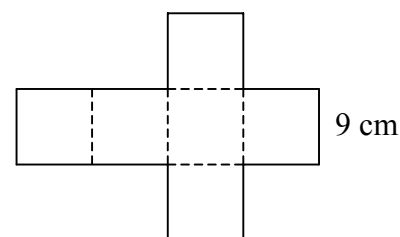
   ii) **What percentage** of the residents are **not children**?

<div align="right">6 marks</div>

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9. a) The net of a solid is made up of 6 squares, each of side 9 cm.

   The solid is a _____.

b) What is the perimeter of the net?

9 cm

c) What is the volume of the solid formed by the net?

<div align="right">6 marks</div>

10. The turtle is going to meet the rabbit for a race. Use the commands

$$FD, RT \text{ and } LT$$

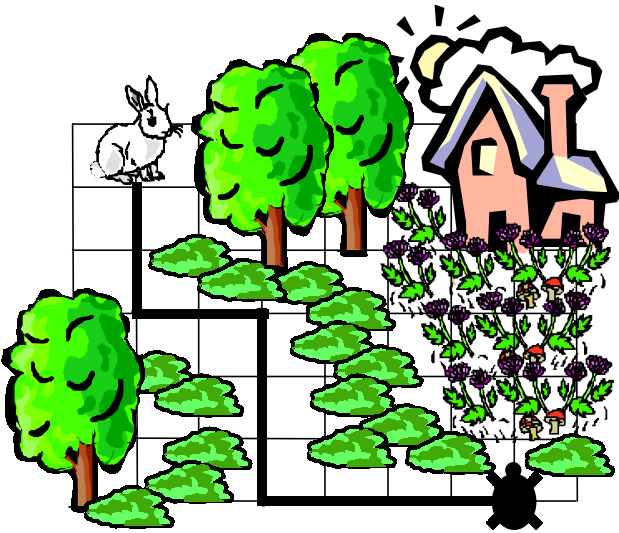to complete the whole route the turtle takes to meet the rabbit.

LT 90

FD 4

_____

_____

_____

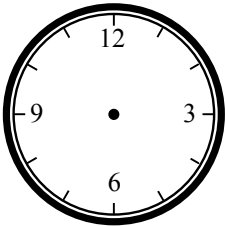_____

_____

_____

6 marks

11. a) Complete:

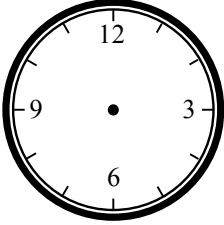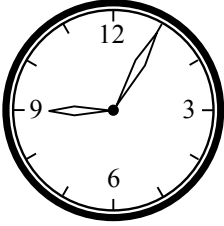   i) 1 **week** = _____ **days**;

    ii) 1 **year** = _____ **months**;

    b) Draw the hands of the clock to show the correct time.
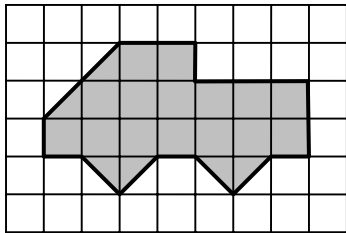
    Quarter past eleven:

    c) Complete the table:

24-hour clock	12-hour clock	a.m. or p.m.
03:40		
		p.m

8 marks
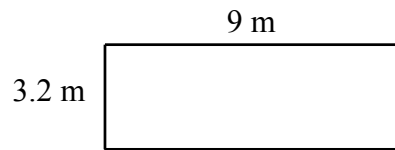
12. a) Fill in :   i) 3 m   = _____ cm;
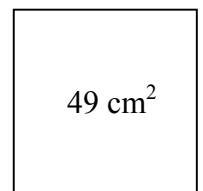
ii) 240 mm = _____ cm.

b) Find the **area** of the shaded shape in **squares**.
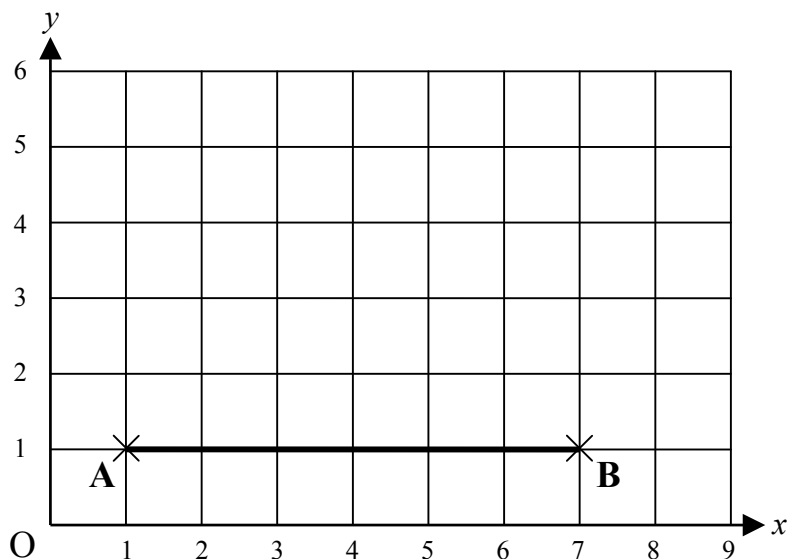
c) Find the **area** of the shape in **m²**.

9 m

3.2 m

d) A square has an area of 49 cm² . Find the length of its side.

49 cm²

<div align="right">8 marks</div>

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13. a)   On the square grid AB is a straight line.

Write down the coordinates of A and B.

i) A (_____, _____)

ii)B (_____, _____)
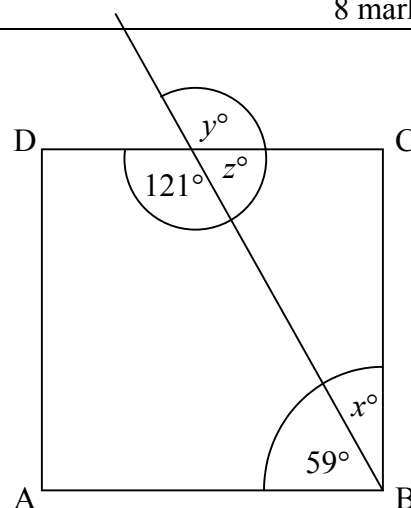
b)   Plot point C (4, 5).

c)   Join point AC and BC.
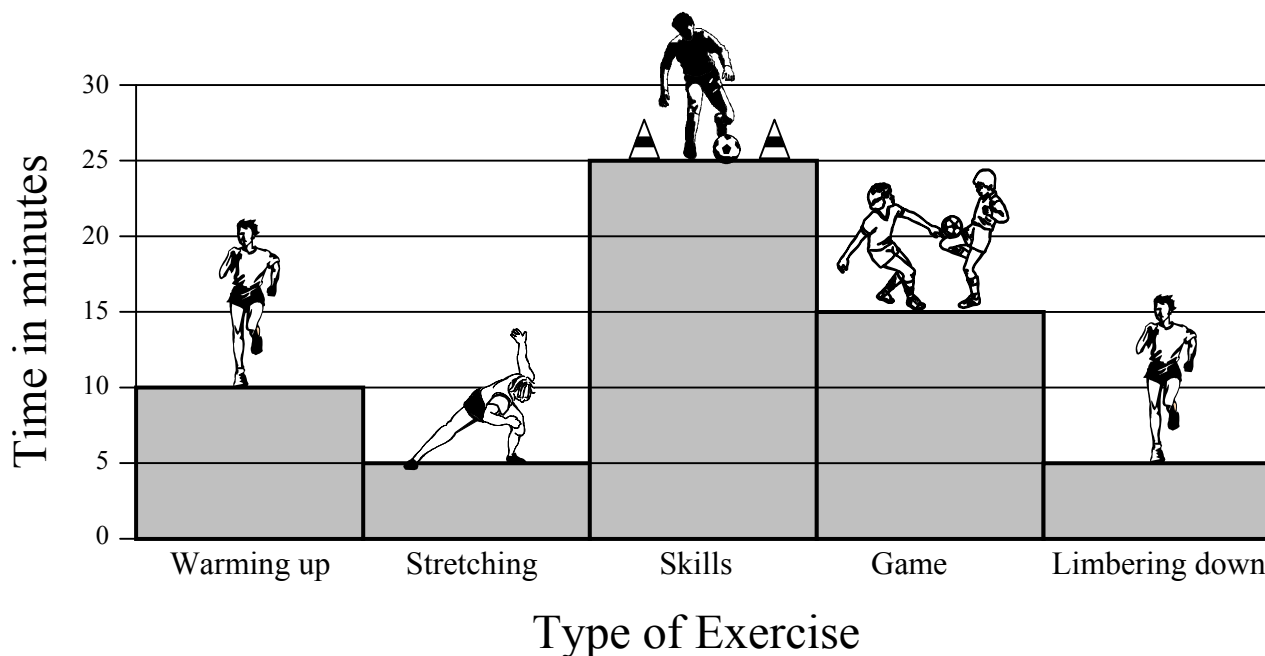
ABC   is   an   _____   **triangle**   because   it   has   **two   sides** _____.

d)   Draw the line of symmetry of triangle ABC.

14. a) ABCD is a **square**.
     Corners A, B, C and D are **each** _____ **degrees**.

     b) Use **arrows** to **mark** a pair of **parallel sides** on the square.

     c) Find the value of the angles marked $x°$, $y°$ and $z°$.

D ┌─────────────────────┐ C
$121°$ $y°$ $z°$

$x°$
$59°$
A └─────────────────────┘ B

8 marks

15. The bar graph shows how a coach plans a training session for his football team.

Time in minutes

30
25
20
15
10
5
0

Warming up   Stretching   Skills   Game   Limbering down

Type of Exercise

a) Use the bar graph to fill in the frequency table:

Type of Exercise	Minutes
Warming up	
Stretching	
Skills	
Game	
Limbering down	

b) **How long** is the training session? _____

c) What **fraction** of the session is spent on **warming up**? _____

d) What **percentage** of the session is spent on the **game**? _____

8 marks