SECONDARY SCHOOLS ANNUAL EXAMINATIONS - 2002

Educational Assessment Unit - Education Division

FORM 1   **MATHEMATICS (MENTAL)**   **TIME: 10 min.**
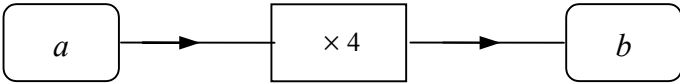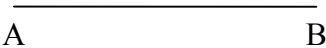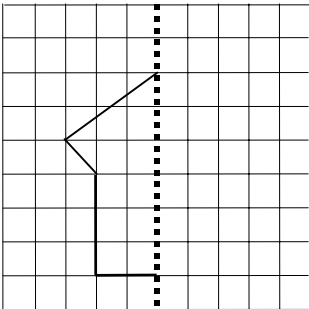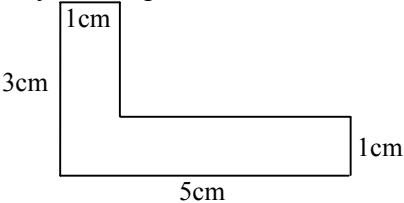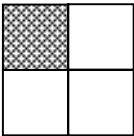
Name _____   Class _____

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.**
- **THIS PAPER CONTAINS 10 QUESTIONS.**

DO NOT WRITE IN THIS SPACE

QUESTION	Space for working if required
1. What number is 1 **greater** than 30199? Ans:_____	
2. Write in **figures** the number **seven hundred and fourteen**. Ans:_____	
3. The **diameter** of a wheel is 20 cm. How long is its **radius**? Ans:_____	
4. Which is the **largest** length? A) 0.70 m , B) $\frac{3}{4}$ m, C) 65 cm, D) 0.09 m Ans:_____	
5. What is the value of *b* when *a* = **7**? a → × 4 → b Ans:_____	
6. Give an **estimate** for the length of the line AB. A B Ans:_____	
7. The **dotted** line is a line of symmetry. Complete the diagram.	
8. Write Lm738.52 correct to the **nearest** Lm. Ans:_____	

9. How many 1cm squares do I need to make this square?
    1cm
3cm
          1cm
     5cm Ans:_____	

10. What **percentage** of the shape is shaded? Ans:_____	

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FORM 1	MATHEMATICS (Main Paper)	TIME: 1h 50 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)   7.65
            + 2.18
         _____

b)   Fill in   7 ☐ 5
     +   2 5 ☐
            _____
              9 9 0
            _____

c)   Fill in

$8 \times \boxed{} + 2 = 34$

d)   Use all these figures $\boxed{1}$ $\boxed{2}$ $\boxed{3}$ to make
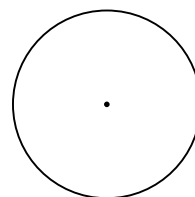
the **largest odd** number.

_____   (4 marks)

2.   a) Which 2 objects do I buy for
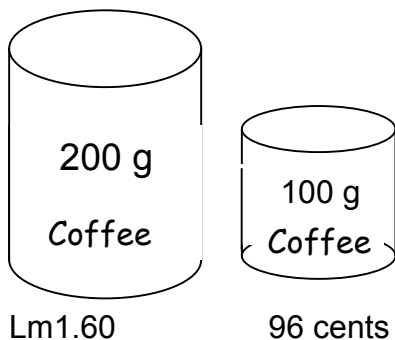   exactly Lm1?

        i) popcorn: 45c
        ii) ice cream: 65c
        iii) chocolate: 47c
        iv) drink: 35c

b)   How many degrees does the hand of the clock
     turn through when it goes from 1 to 4?

_____   _____   (4 marks)

3.

200 g
Coffee
Lm1.60

100 g
Coffee
96 cents

a) Which is **cheaper** to buy, 1 large coffee tin or 2 small ones; and by how much?

_____

b) Fill in

$$\frac{6}{10} \; = \; \frac{\boxed{}}{100} \; = \; \boxed{} \; \%$$

(4 marks)

4. a) 7 m
    - 4 m 50 cm
    _____

b) 15.302 kg
    ×   10
    _____

c) 3 cm 5 mm
    + 5 cm 8 mm
    _____

d) 10) Lm 92.40
    _____

(4 marks)

5. a) I start facing west and turn east. How many degrees do I turn through?

N

W ——————— E

S
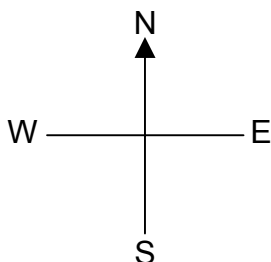
b) An aeroplane at A, is facing north. It turns 90° **anticlockwise**. Mark its new direction on the diagram.

N

A

(4 marks)

6.　a)　Fill in: $\dfrac{4}{15}$ $+$ $\dfrac{\square}{\square}$ $=$ $\dfrac{7}{15}$　　d) $\dfrac{37}{\square}$ $=$ $9\,\text{rem}\,1$

b)　Write the next 2 numbers to continue

the pattern: $2.5, 2.6, 2.7, 2.8,$ ___ , ___

e)　What is the value of the digit 2 in 34.25?

_____

c)　If $16 \times 11 = 176$
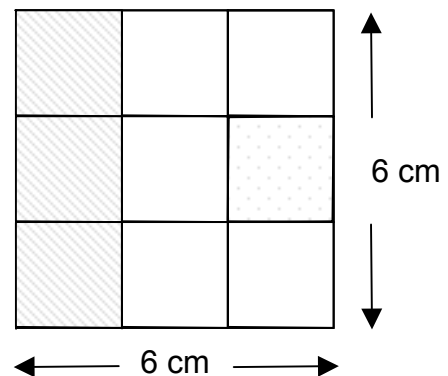
then $16 \times 55 =$ ____

_____(6 marks)

7.　The diagram shows a square of side 6 cm.

a) Write the fraction that

i)　is covered in dots_____
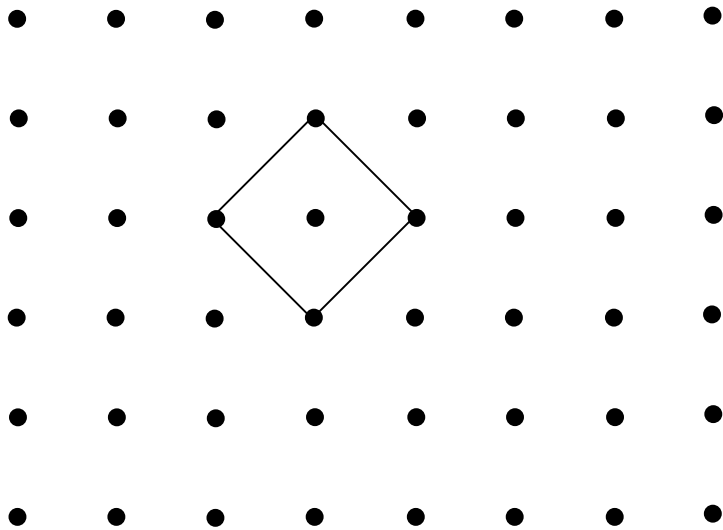
ii)　is shaded ☐ _____

b) The area

i)　of the whole diagram is _____cm^2.

ii)　of the dotted square is _____cm^2.

.

(6 marks)

_____

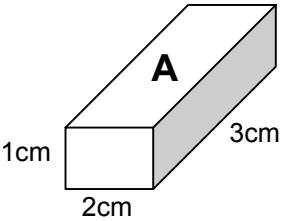8. a) Draw four more squares to show that the shape tessellates

b) Solid A is a cuboid.

i) How many vertices does the cuboid have?

_____

ii) What is the volume of the cuboid?

_____

iii) What is the area of the smallest face?

_____

(6 marks)

9. a) 1.8 km = _____ m.

b) 500 cm = _____ m.

c) 537.284 correct to **2 decimal places** = _____ .

d) 25% of 360 g = _____ g.

e) $\frac{3}{4}$ of Lm5 in **cents** = _____ c.

f) Write in order of size, **smallest** first:

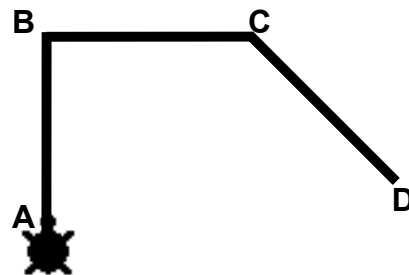$\frac{3}{4}$, $\frac{3}{3}$, $\frac{3}{8}$. _____, _____, _____.

(6 marks)

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10 a) The figure shows the turtle at the starting position. The turtle **moves** from point **A** to point **D**.

AB = BC = CD = 50 turtle steps.

Fill in the missing commands.

FD 50
RT _____
FD _____
RT 45
FD _____

b) The figure shows the turtle at the starting position. The turtle moves from point **X** to a point **Y**.

Following this set of commands, draw a diagram to show how the turtle moves from point X to the point Y.
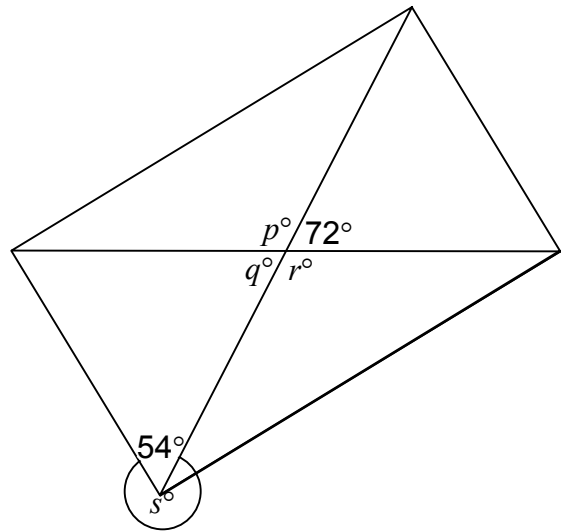
FD 40

LT 90

FD 80

X

(6 marks)

11. a) Write the values of *p* and *s*.

   i)   *p* = _____

   ii)   *s* = _____

   b) Fill in the spaces below using words from this list:

   vertically opposite, acute, reflex, right, revolution

   i)   *p, q, r* and 72° together form a _____.

   ii) Angles *p* and *r* are called _____ angles.

   iii) Angle *s* is called a _____ angle.

   c) On the diagram mark a pair of parallel lines using arrows.

   (8 marks)

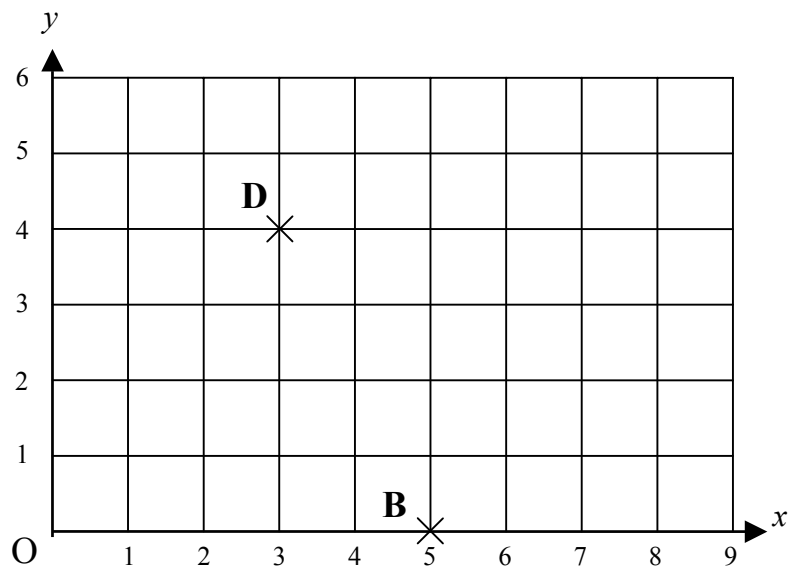12 a) Write the coordinates of the points **B** and **D**.

   B = (,   )

   D = (,   )

   b) Plot and label the points **A**(0, 0), **C**(8, 4)

   c) Join the points **A**, **B**, **C** and **D** to form a shape.
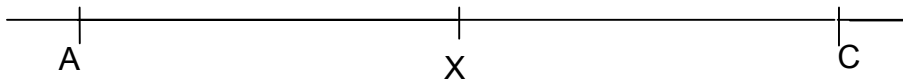
   d) The lines **AC** and **BD** are called d _____

   e) Mark a pair of **equal** angles on the shape.

   (8 marks)

13. a) Using **ruler** and **compasses** only, draw triangle ABC in which AC = 10cm, AB = 6 cm, BC = 8 cm

b) Using a **protractor** measure angle **A**   Angle A = _____

c) Triangle **ABC** is (scalene, isosceles, equilateral). _____

d) X is a point on AC. With **centre X** and **radius** 5 cm, draw a circle.

e) Write down the length of **BX**.   BX = _____ cm.
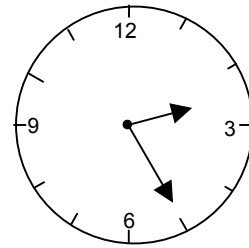
A   X   C

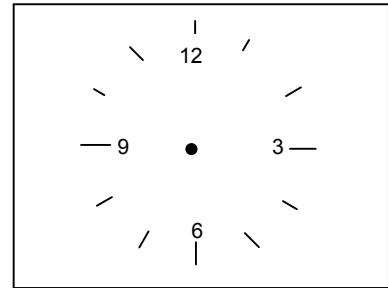(8 marks)

14. a) Complete

(i) 1 day = _____ hours   (ii) 1 minute = _____ seconds

b) What is the time shown on this clock face ?

c) Show the time " a quarter to seven " on the clock face.

d) Write the time | 15:30 | as on a 12 hour clock.   ___ ___ _____ (a. m. / p. m.)

(8 marks)

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15   This chart shows the daily income of a
supermarket
a) Write down the incomes on

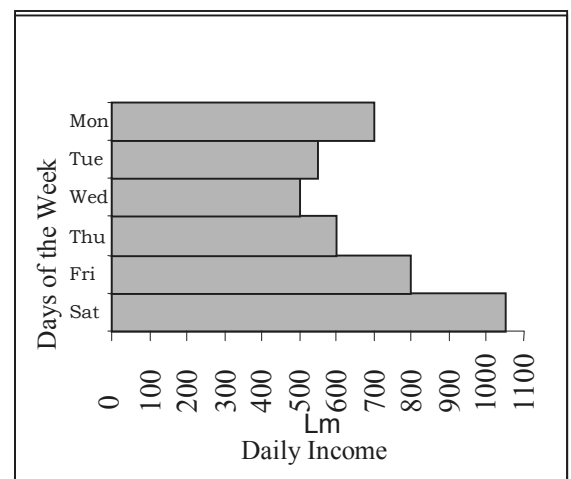i)   Monday   _____

ii)   Tuesday   _____

iii)   Thursday   _____

b) On which 2 days were the incomes more than
Lm 700?
_____ and _____ .

c) What is the difference between the highest and
the lowest daily incomes?

_____

(8 marks)

END OF PAPER