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**FORM 3                      MATHEMATICS SCHEME D                      TIME: 30 minutes**  
**Non Calculator Paper**

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**Name:** \_\_\_\_\_ **Class:** \_\_\_\_\_

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1	2	3	4	5	6	7	8	9	10	Total

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### Instructions to Candidates

- Answer **ALL** questions.
  - This paper carries a total of **25** marks.
  - Calculators and protractors are **NOT ALLOWED**.
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1. Complete the following sequences:

a) 5, 8, 11, \_\_\_\_\_, \_\_\_\_\_

b) 20, 18, 16, \_\_\_\_\_, \_\_\_\_\_

(2 marks)

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2. Complete the following:

a)  $\frac{1}{2} = \frac{\quad}{4}$

b)  $\frac{1}{3} = \frac{3}{\quad}$

(2 marks)

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3. Work out:

a) 20% of €5

b) 50% of 1000 ml

Ans: a) € \_\_\_\_\_ b) \_\_\_\_\_ ml (2 marks)

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Name: \_\_\_\_\_ Class: \_\_\_\_\_

D

4. The marks obtained by 10 students in a test are shown below:

**6, 8, 4, 6, 9, 3, 5, 6, 2, 7**

What is a) the mode?

b) the mean?

Ans: a) \_\_\_\_\_ b) \_\_\_\_\_

(3 marks)

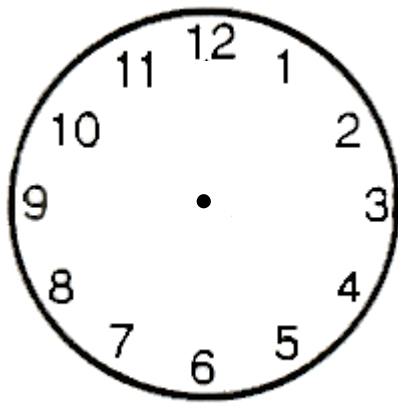
5. Complete the following:

a)  $4 \times 10 =$  \_\_\_\_\_

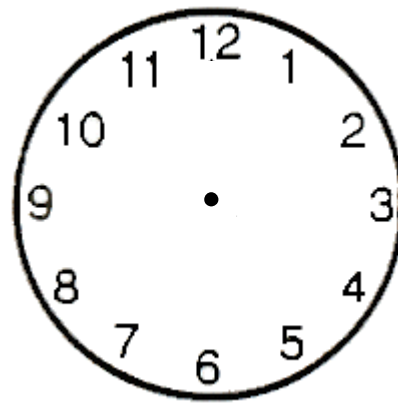
b)  $(4 \times 6) + 8 =$  \_\_\_\_\_

(2 marks)

6. On the clocks below put the times given.



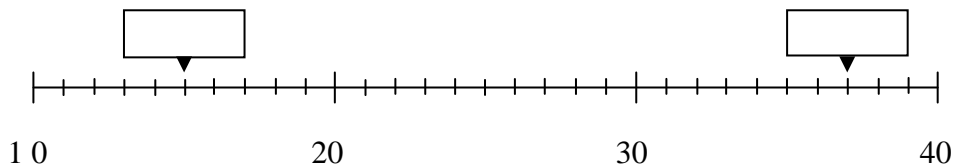
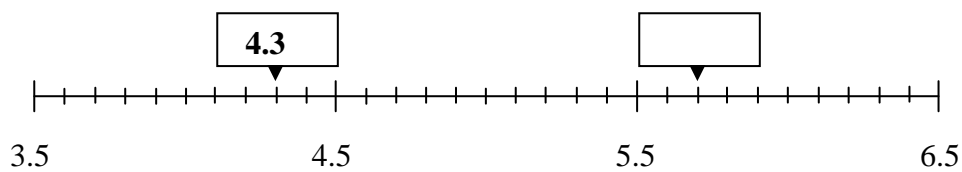
3 o'clock



quarter past 8

(2 marks)

7. Write the values the arrows are pointing to.



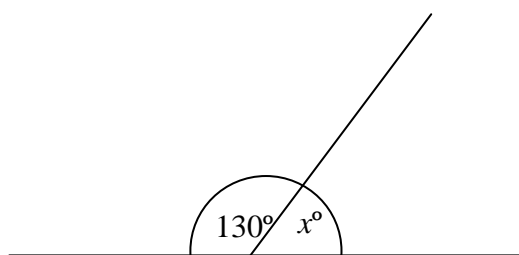
(3 marks)

8. Simplify:  $4y + 9x - 3y + 10y - 2x + 5$

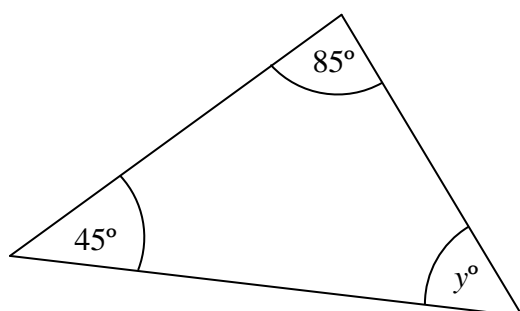
Ans: \_\_\_\_\_

(3 marks)

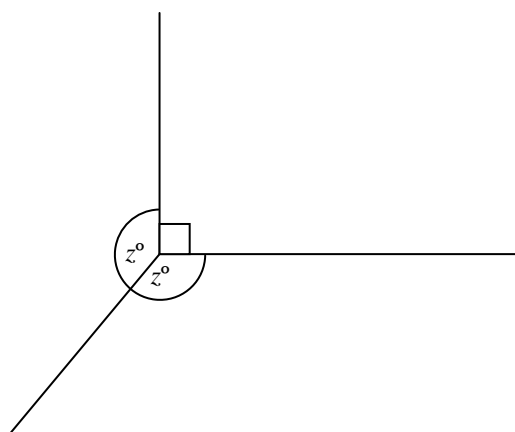
9. Work out the marked angles.



$$x = \underline{\hspace{2cm}}$$



$$y = \underline{\hspace{2cm}}$$



$$z = \underline{\hspace{2cm}} \quad (3 \text{ marks})$$

10. Put these numbers in order of size starting with the smallest.

**4.0, 0.40, 0.44, 4.4, 44**

\_\_\_\_\_

(3 marks)

**FORM 3**

**MATHEMATICS SCHEME D**

**TIME: 1h 30min**

**Main Paper**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total Main	Non Calculator	GLOBAL MARK

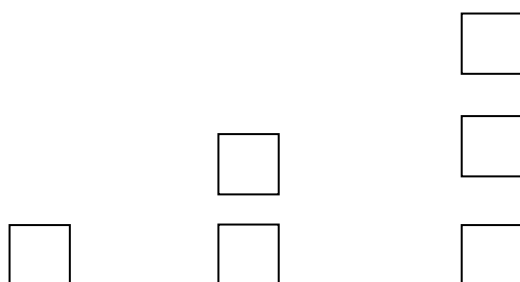
**DO NOT WRITE ABOVE THIS LINE**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**CALCULATORS ARE ALLOWED BUT ALL NECESSARY WORKING MUST BE SHOWN.  
 ANSWER ALL QUESTIONS.**

1. a) Draw the next pattern:



b) How many squares are there in the 5<sup>th</sup> pattern?

c) Which pattern consists of 50 squares?

Ans: b) \_\_\_\_\_ c) \_\_\_\_\_

(3 marks)

2. Round a) 23 to the nearest 10. \_\_\_\_\_

b) 86 to the nearest 100. \_\_\_\_\_

c) €53.77 to the nearest euro. \_\_\_\_\_

d) €21.11 to the nearest 10c. \_\_\_\_\_

(4 marks)

3. a) Work out:

(i)  $2p - q$  when  $p = 2$  and  $q = 8$ .

Ans: \_\_\_\_\_

(ii)  $11 + (x - y)$  when  $x = 10$  and  $y = 4$ .

Ans: \_\_\_\_\_

b) Solve the equation  $2x + 3 = 13$ .

Ans: \_\_\_\_\_

(5 marks)

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4. a) Each shirt needs 6 buttons. How many buttons are needed for 7 shirts?



Ans: \_\_\_\_\_

b) There are 24 toffees in a packet. Mary ate half of the packet while John ate one third.

(i) How many toffees did Mary eat?

(ii) How many toffees did John eat?

(iii) How many are left?



Ans: (i) \_\_\_\_\_ (ii) \_\_\_\_\_ (iii) \_\_\_\_\_

(6 marks)

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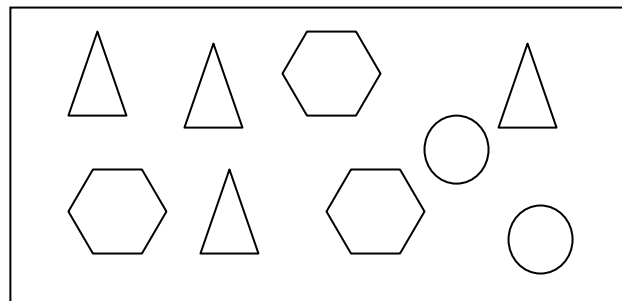
Name: \_\_\_\_\_ Class: \_\_\_\_\_

5. Find the ratio of:

a) triangles to hexagons \_\_\_\_\_:

b) triangles to circles \_\_\_\_\_:

Simplified ratio is \_\_\_\_\_:



(3 marks)

6. State TRUE or FALSE.

a) The angles in a square are all equal. \_\_\_\_\_

b) A quadrilateral has 4 sides. \_\_\_\_\_

c) The sum of the angles of a triangle is  $360^\circ$ . \_\_\_\_\_

(3 marks)

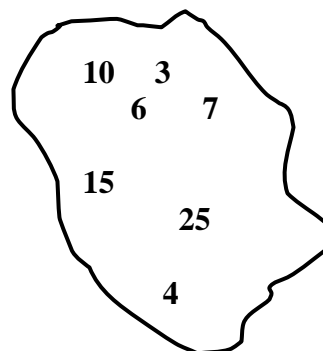
7. The diagram represents a set of numbers.

From this set write down:

a) the factors of 12. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

b) the multiples of 5. \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

c) the prime numbers. \_\_\_\_\_, \_\_\_\_\_



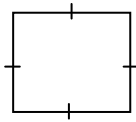


8. Write the rule for each of the following sequences.

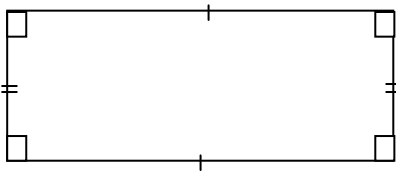
- a) 0, 4, 8, 12. The rule is ADD 4.
- b) 6, 8, 10, 12, 14. The rule is \_\_\_\_\_.
- c) 5, 10, 15, 20, 25. The rule is \_\_\_\_\_.
- d) 10, 8, 6, 4, 2, 0. The rule is \_\_\_\_\_.

(3 marks)

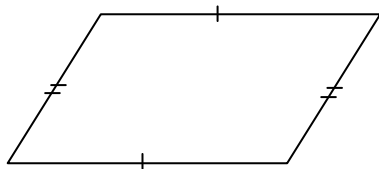
9. Match the following shapes with the correct name:



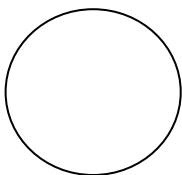
**CIRCLE**



**PARALLELOGRAM**



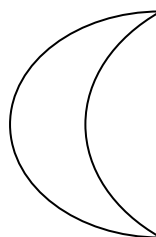
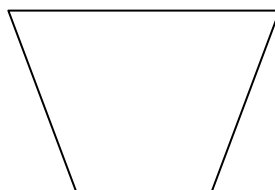
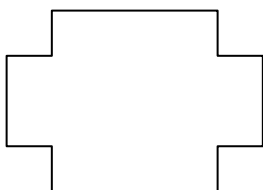
**SQUARE**



**RECTANGLE**

(4 marks)

10. a) Draw the lines of symmetry of the following shapes.  
b) Shade half of each shape.



11. Points A, B and C are plotted on the grid.

a) Write the coordinates of A, B and C.

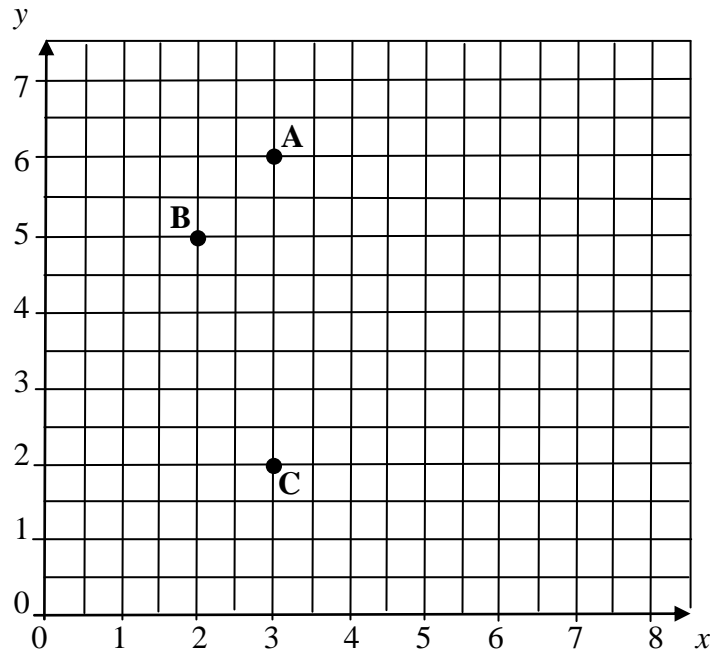
A = (            )

B = (            )

C = (            )

b) Now plot the point (4, 5).  
Label it D.

c) Join A to B, B to C, C to D  
and D to A.



d) What is the name of the shape formed?

\_\_\_\_\_

e) Draw its line of symmetry.

(7 marks)

12. Match the following cards.

2 h

3 kg

1 m

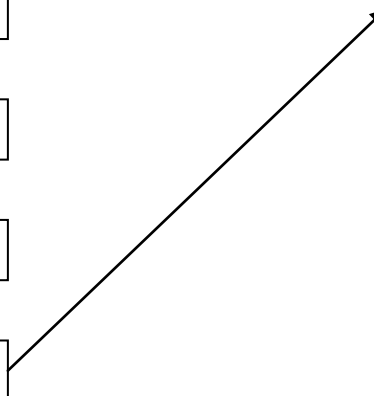
1 ℓ

1000 ml

100 cm

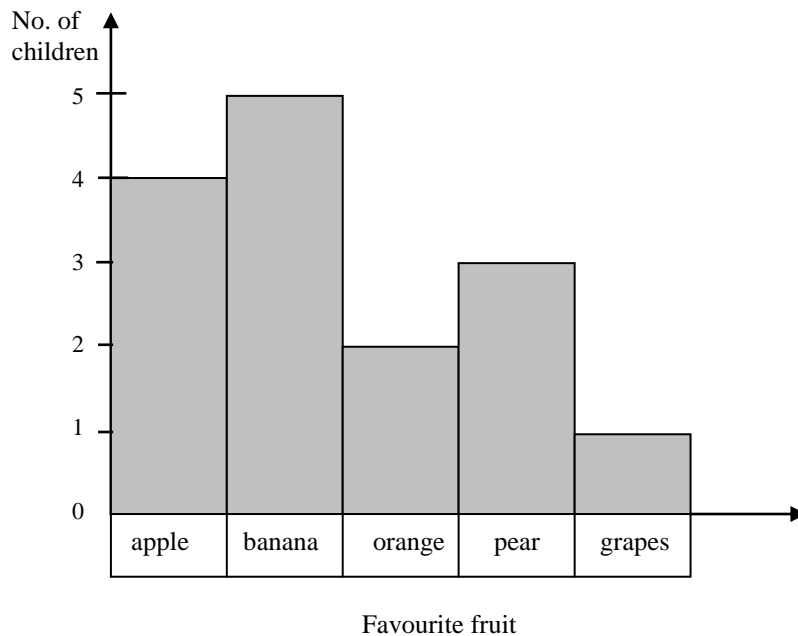
3000 g

120 minutes



(3 marks)

13. A number of children were asked about their favourite fruit. The information collected is shown in the bar chart below.



a) How many children chose apple? \_\_\_\_\_

b) Which is the most popular fruit? \_\_\_\_\_

c) Put the fruit in order of popularity, starting with the least popular.

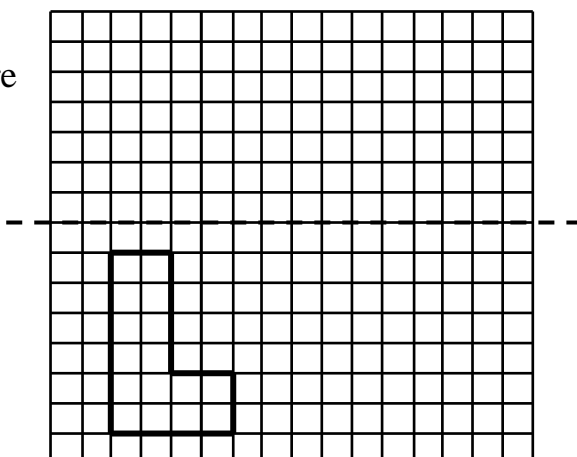
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

d) How many children took part in the survey? \_\_\_\_\_

(6 marks)

14. a) Translate the L-shape shown by 6 squares to the right and 1 square upwards. Label it B.

b) Now reflect B in the dotted line. Label it C.



15. The table shows the coins in a bag.

Coin	Number of Coins
10 cent	3
20 cent	4
50 cent	2



a) How many coins are in the bag?

Ans: \_\_\_\_\_

b) Paul pulls out a coin without looking. What is the probability that the coin is:

(i) a 10 cent?

(ii) a €1?

Ans: (i) \_\_\_\_\_ (ii) \_\_\_\_\_

(3 marks)

16. There are 18 students in a class. One third of the students study French and one half study Italian.

Language	Number of students
French	
Italian	
Spanish	

a) Complete the table above to show the number of students studying each language.

b) What fraction of the whole class study Spanish?

Ans: b) \_\_\_\_\_

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17. a) A field is in the form of a rectangle. It measures 25 m by 20 m. What is the perimeter?

Ans: \_\_\_\_\_

b) A stone is in the form of a cuboid.  
It is 45 cm long, 25 cm high and 15 cm thick.  
Work out its volume.



Ans: \_\_\_\_\_ cm<sup>3</sup>

c) Sarah pays €4.50 to travel to work each week. She works for 45 weeks.  
How much does it cost her?

Ans: \_\_\_\_\_

( 6 marks)

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