

**SECONDARY SCHOOL ANNUAL EXAMINATIONS 2008**  
DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION  
Educational Assessment Unit



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**FORM 3**

**MATHEMATICS – Scheme D**  
**(NON-CALCULATOR PAPER)**

**TIME 30 min**

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

Class \_\_\_\_\_

Mark

**INSTRUCTIONS TO CANDIDATES**

- Answer all questions. There are 10 questions.
  - This paper carries 30 marks.
  - Calculators and protractors are not allowed
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1. Work out:

(a)  $€6 \cdot 24 + €3 \cdot 59$

Ans €\_\_\_\_\_

(b)  $€10 \cdot 86 - €4 \cdot 02$

Ans €\_\_\_\_\_

(2 marks)

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2. Fill in with the correct number.

(a)  $13 + \underline{\hspace{2cm}} = 20$

(c)  $6 \times \underline{\hspace{2cm}} = 48$

(b)  $\underline{\hspace{2cm}} - 9 = 23$

(d)  $2100\text{g} = \underline{\hspace{2cm}}\text{kg}$

(4 marks)

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3. Work out

(a)  $2 \times (20 - 5) = \underline{\hspace{2cm}}$

(b)  $8 - 18 = \underline{\hspace{2cm}}$

(2 marks)

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4. Complete the sequence:  $1 \cdot 5$  ,  $2 \cdot 0$  ,  $2 \cdot 5$  ,  $3 \cdot 0$  , \_\_\_\_\_ .

(1 mark)

5.

SANDY'S Take Away Price List	
Pizza	€1.00
Tuna Sandwich	€0.80
Chicken Pie	€1.50
Apple Pie	€0.50

Complete this bill:

2 Pizzas = €\_\_\_\_\_

5 Tuna Sandwiches = €\_\_\_\_\_

4 Chicken Pies = €\_\_\_\_\_

10 Apple Pies = €\_\_\_\_\_

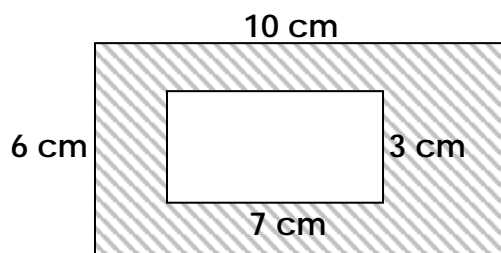
**TOTAL** €\_\_\_\_\_

(3 marks)

6. Underline the **prime** number: 4 , 7 , 9 , 15 .

(1 mark)

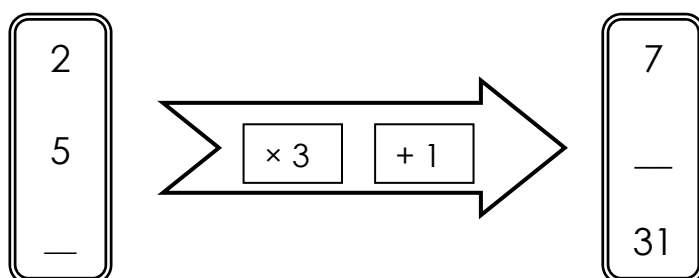
7. Calculate the shaded area in  $\text{cm}^2$ .



Ans \_\_\_\_\_  $\text{cm}^2$

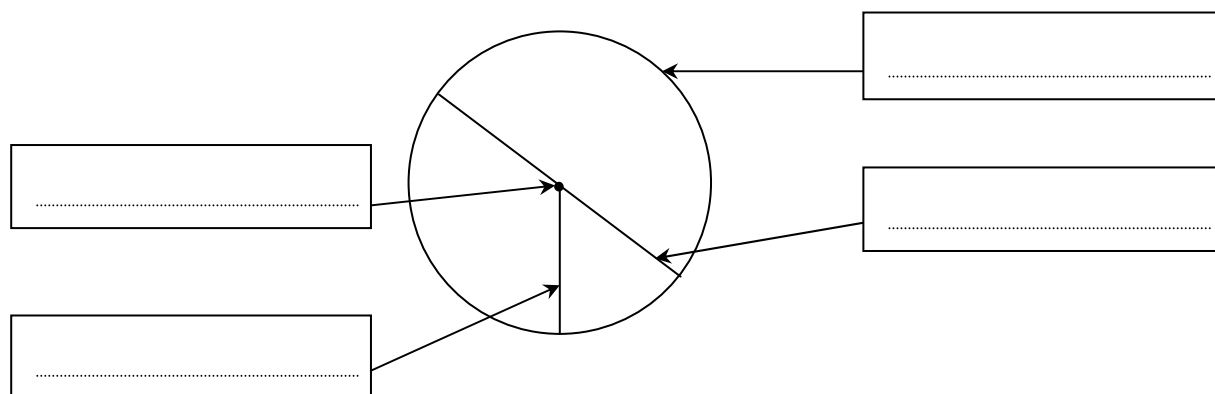
(4 marks)

8. Fill in the blanks to complete this number machine.



(4 marks)

9. Fill in with the words: diameter , radius , centre and circumference.



(4 marks)

10. Use arrows to match. The first one is ready.

Opposite sides and angles equal

All three sides equal ·

Only one pair of parallel sides ·

Six identical faces ·

One line of symmetry ·

Five vertices ·

· TRAPEZIUM

· SQUARE BASED PYRAMID

· KITE

· EQUILATERAL TRIANGLE

· CUBE

· PARALLELOGRAM

(5 marks)

**SECONDARY SCHOOL ANNUAL EXAMINATIONS 2008**  
 DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION  
 Educational Assessment Unit

**FORM 3**

**MATHEMATICS – Scheme D**  
**(MAIN PAPER)**

**TIME 1 hour 30 min**

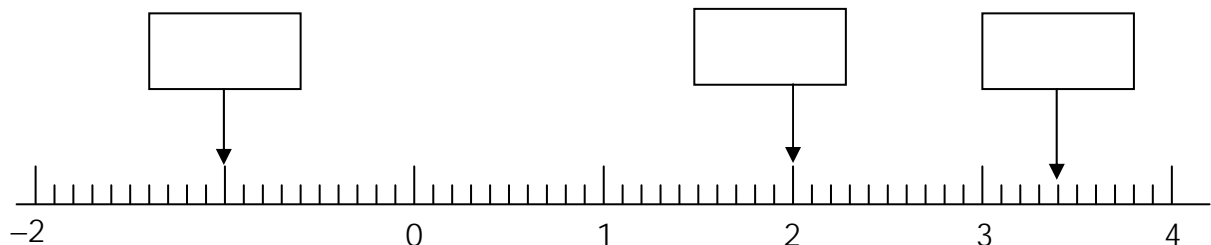
Question	1	2	3	4	5	6	7	8	9	10	11	12	Non- Calc	Main	Total
Mark															

Calculators are allowed but all necessary working must be shown.

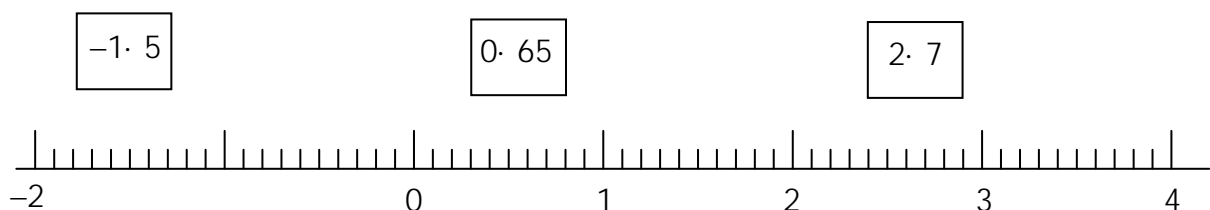
Name\_\_\_\_\_

Class\_\_\_\_\_

1. (a) Fill each empty box with the correct value.



- (b) Use arrows to show the position of the numbers in the boxes.



(6 marks)

2. (a) Work out a rough estimate for:  $9 \cdot 7 \times 5 \cdot 1 =$  \_\_\_\_\_

(b) Use your calculator to find the exact value of:  $9 \cdot 7 \times 5 \cdot 1$

Ans\_\_\_\_\_

(c) Give your answer to (b) correct to 1 **decimal place**.

Ans\_\_\_\_\_

(5 marks)

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3. There are 240 people in a hall. 50% are women, 15% are men and the rest are children.

(a) What percentage are children?

Ans\_\_\_\_\_%

(b) How many children are there?

Ans\_\_\_\_\_

(4 marks)

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4. Complete the following table.

e.g.	Fraction	Decimal	Percentage
	$\frac{1}{4}$	0 · 25	25%
	$\frac{1}{5}$		
		0 · 75	
			50%

(6 marks)

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Name \_\_\_\_\_

Class \_\_\_\_\_

D

5. (a) Simplify  $3x + 6y + 4x - 2y$

Ans \_\_\_\_\_

(b) Solve the equation:  $7 + x = 13$

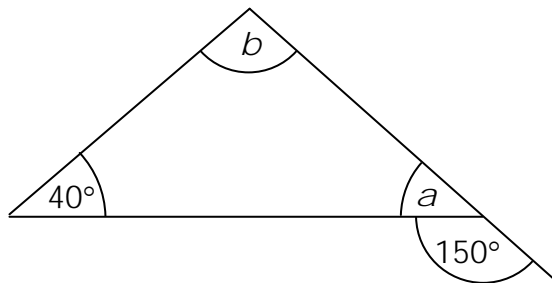
Ans  $x =$  \_\_\_\_\_

(c) Find the value of  $3x + 2$  when  $x = 4$

Ans \_\_\_\_\_

(6 marks)

6.



(a) What is the size of the angle marked  $a$ ?

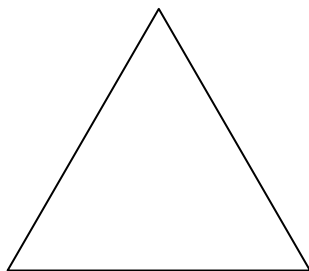
Ans  $a =$  \_\_\_\_\_ $^\circ$

(b) What is the size of the angle marked  $b$ ?

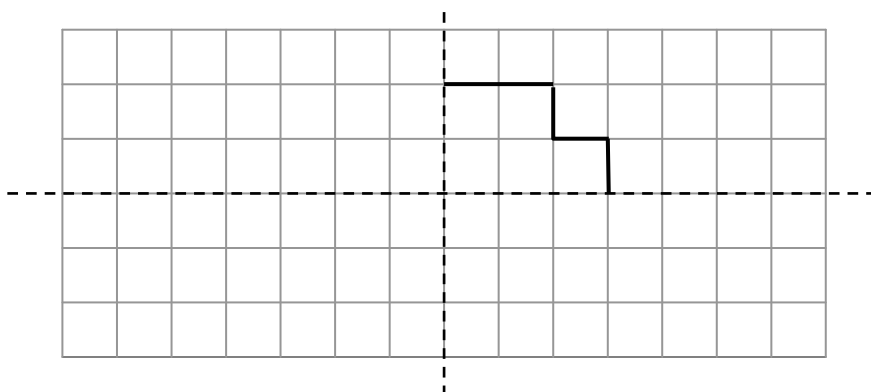
Ans  $b =$  \_\_\_\_\_ $^\circ$

(4 marks)

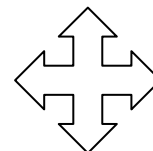
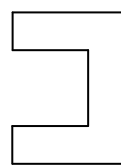
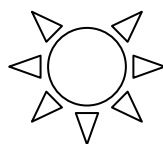
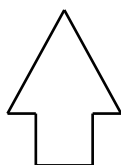
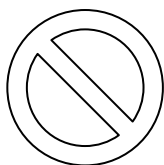
7. (a) Draw the **lines of symmetry**.



- (b) Complete the shape to make it symmetrical about the dotted lines.



- (c) Look at the shapes below. Tick(✓) the ones that have **rotational symmetry**.

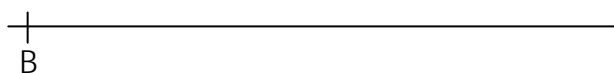
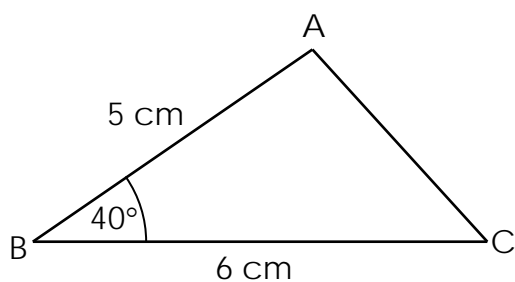


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(7 marks)



8. (a) Use a ruler, a protractor and compasses to draw the triangle on the line below. Point B is given.

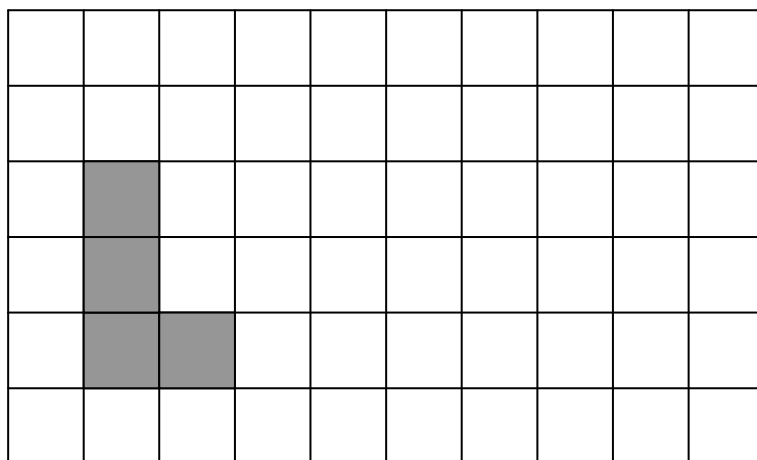


- (b) From your drawing, measure angle A.

$\angle A = \underline{\hspace{2cm}}^\circ$

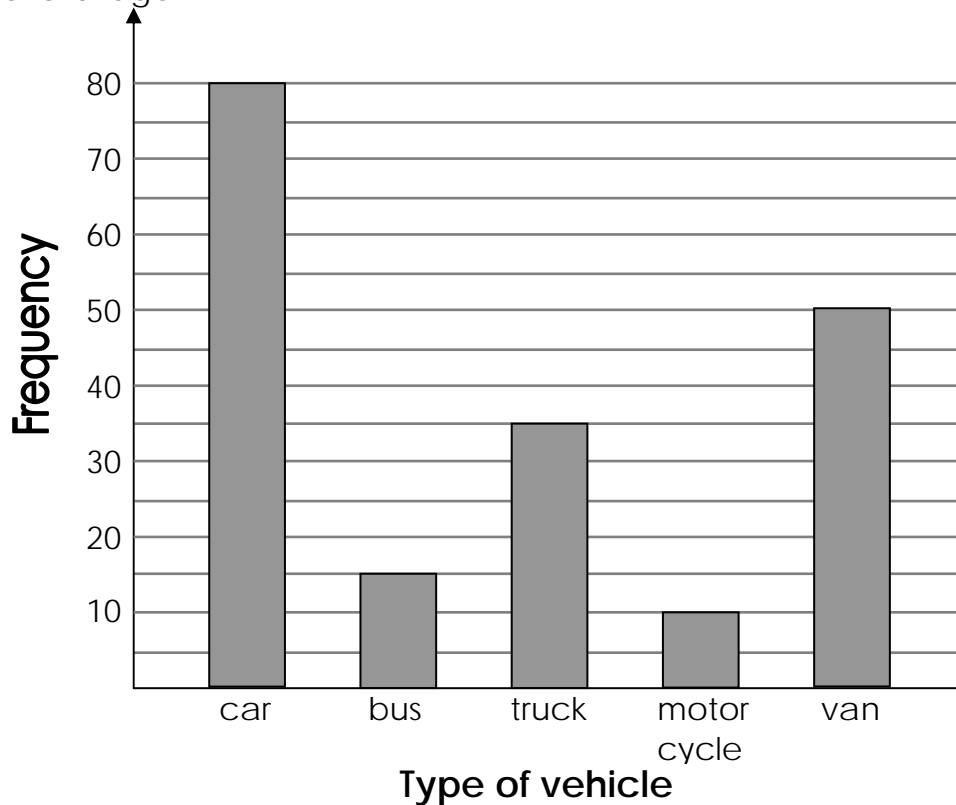
(4 marks)

9. Add three more similar L shapes to show that it can **tessellate**.



(2 marks)

10. (a) The bar chart shows the number of different types of vehicles that passed over a bridge.



(i) How many vehicles passed over the bridge **in all** ?      Ans\_\_\_\_\_

(ii) Which type of vehicle passed **most** ?      Ans \_\_\_\_\_

(iii) Which type of vehicle passed **least** ?      Ans \_\_\_\_\_

(iv) How many **more** vans than buses passed over the bridge ?

Ans\_\_\_\_\_

(b) These are the favourite colours of ten children:

red   blue   red   green   yellow   red   blue   green   red   blue

The **mode** is \_\_\_\_\_

(c) Calculate the **range** and **mean** of 2 , 3 , 7 , 10 and 20.

Ans: range = \_\_\_\_\_

Ans: mean = \_\_\_\_\_

(11 marks)

11. Jeremy always follows the timetable below.

Wakes up	07 : 00
Washes	07 : 30
Eats breakfast	08 : 00
Starts work	08 : 30
Has lunch	13 : 00
Bathes	19 : 00
Watches TV	21 : 45
Goes to sleep	23 : 00

(a) What is Jeremy doing at 8 am ?

Ans\_\_\_\_\_

(b) Where is Jeremy at half past eight ?

Ans\_\_\_\_\_

(c) At what time does Jeremy go to bed ?

Ans\_\_\_\_\_

(d) Does Jeremy have lunch in the morning or in the afternoon ?

Ans\_\_\_\_\_

(e) Write **true** or **false**. Jeremy watches more than 2 hours of TV.

Ans\_\_\_\_\_

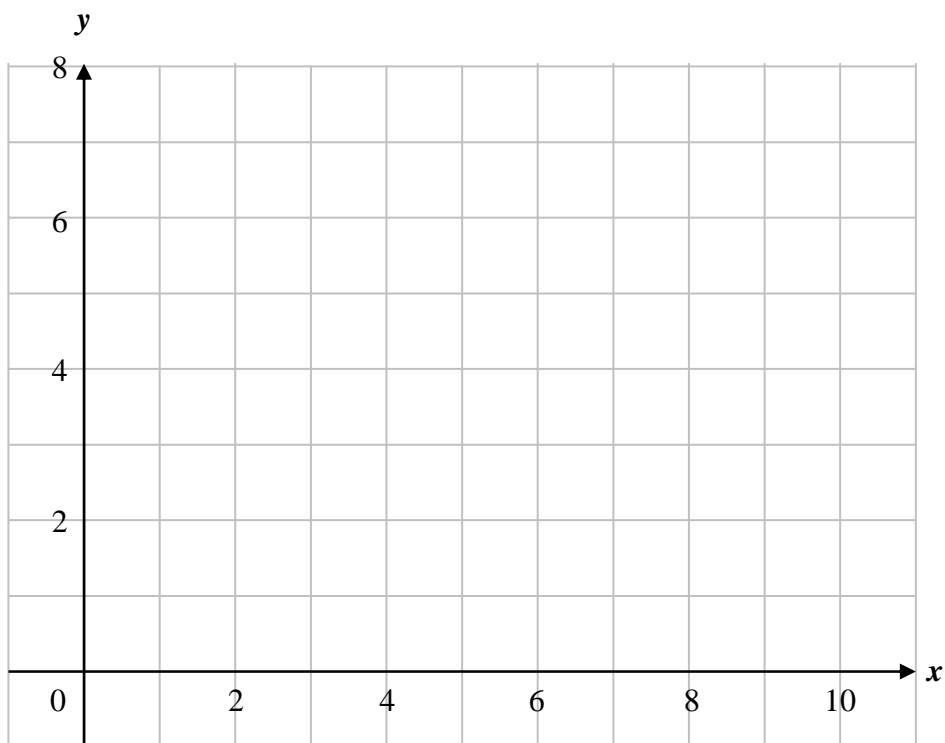
(f) Calculate the number of hours that Jeremy spends sleeping.

Ans\_\_\_\_\_hours.

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(7 marks)

12. (a) Plot the points A(1, 1); B(9, 5); C(8, 0) and D(1, 7).  
(b) Join A to B. Join C to D.  
(c) Write the coordinates of the point where the two lines meet. Ans (     ,     )



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(8 marks)