SECONDARY SCHOOL ANNUAL EXAMINATIONS 2009

Directorate for Quality and Standards in Education
Educational Assessment Unit

D

FORM 3 **MATHEMATICS SCHEME D** **TIME: 30 minutes**

Non-Calculator Paper

Name: _____ **Class: _____**

Question	1	2	3	4	5	6	7	8	9	10	**Total**
Mark											

Instructions to Candidates

- Answer all questions. There are 10 questions to answer.
- This paper carries a total of 25 marks.
- Calculators and protractors are not allowed.

1. (a) $\boxed{1000} + \boxed{300} + \boxed{50} + \boxed{8}$

Ans_____

(b) Work out:

958 − 637

Ans_____

(3 marks)

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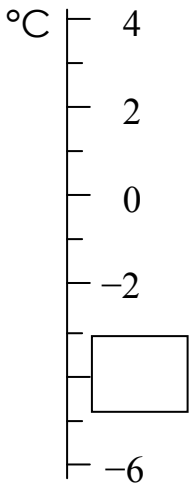
2. (a) Write the missing temperature on this thermometer.



(b) Complete:

1 , 3 , 5 , 7 , _____ .

(2 marks)

Name: _____ **Class:** _____ **D**

3. (a) A packet of crisps weighs 16 grams.
Work out the weight of 100 packets of crisps.

Ans_____grams

(b) Work out:

$\frac{1}{4}$ of €128

Ans €_____

(3 marks)

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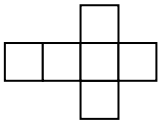
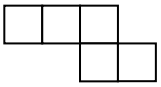
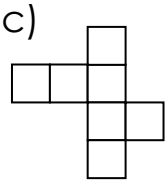
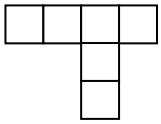
4. Which of the following is the net of a **cube**?

(a) 

(b) 

(c) 

(d) 

Ans_____

(1 mark)

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5. (a) Simplify: $3a + b + 4a + 4b$

Ans_____

(b) Solve the equation: $5 + x = 30$

Ans x = _____

(2 marks)

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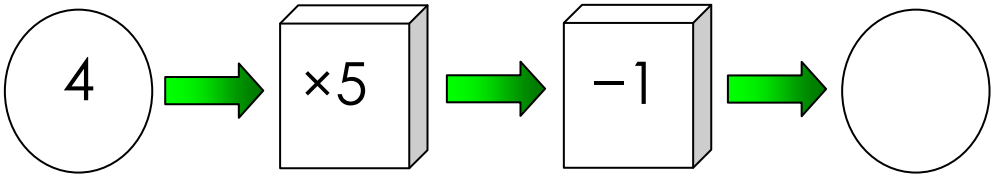
6. **Complete** the following number machine.



(2 marks)

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7. (a) Work out:

$4 \times 2 + (8 - 6)$

Ans_____

(b) Which of the following is the **best estimate** of $98 \cdot 7 - 21 \cdot 3$?

70 80 110 120

Ans _____

(3 marks)

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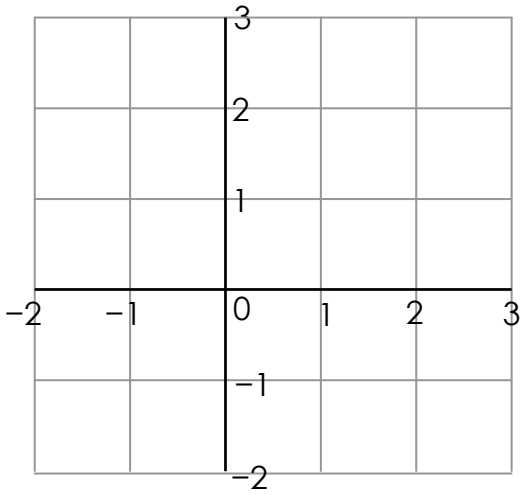
8. (a) Plot and join the points A(1, 3), B(−1, −2).

(b) Mark a third point C to form an isosceles triangle ABC.



(c) Write down the coordinates of point C.

Ans(,)

(3 marks)

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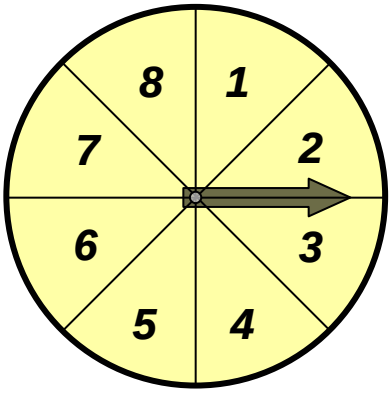
9. The probability that the spinner will show an **odd** number is:

(a) impossible (b) unlikely (c) even chance (d) likely (e) certain



Ans_____

(1 mark)

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10. Fill in the boxes to help you work out:

$$192 \div 6$$

$$
\begin{array}{r|l}
6 & 192 \\
 & -\ 60 \quad \ldots\ldots\ 10 \times 6 \\
\hline
 & 132 \\
 & -\ \boxed{} \quad \ldots\ldots\ 10 \times 6 \\
\hline
 & \boxed{} \\
 & -\ \boxed{} \quad \ldots\ldots\ 10 \times 6 \\
\hline
 & \boxed{} \\
 & -\ \boxed{} \quad \ldots\ldots\ \boxed{} \times 6 \\
\hline
 & 0 \\
\hline
\end{array}
$$

Ans_____

(5 marks)

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2009

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D

FORM 3 **MATHEMATICS SCHEME D** **TIME: 1h 30min**

Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	Total Main	Non Calculator	**Global Mark**
Mark															

DO NOT WRITE ABOVE THIS LINE

Name: _____ **Class:** _____

- **Answer all questions.**
- **This paper carries 75 marks.**
- **Calculators and mathematical instruments are allowed but all necessary working must be shown.**

1. (a) Which of these numbers are **prime**?

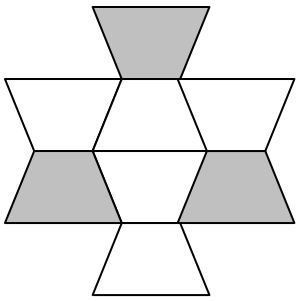
3 4 6 7 9

Ans_____

(b) Write the number *four hundred and six* **in figures**.

Ans_____

(c) What **fraction** of the shape is shaded?

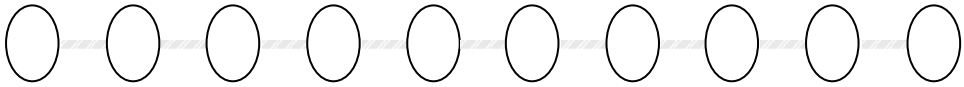


Ans $\frac{\square}{\square}$

(4 marks)

2. (a) Colour this string of beads so that the ratio of

black : white = 1 : 4



(b) Richard walks 8 km in 2 hours.

(i) How far will Richard walk in 1 hour?

Ans_____km

(ii) How far will Richard walk in 4 hours?

Ans_____km

(5 marks)

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3. A rectangle is divided into 10 **equal** squares.

(a) Leonard shades 3 squares. What **percentage** is this?

Ans_____ %

(b) Stephanie has a similar rectangle. She shades 20 %.

(i) **How many** squares is this?

Ans_____ squares

(ii) **How many** squares are not shaded?

Ans_____squares

(iii) What **fraction** of the rectangle is not shaded?

Ans $\frac{\square}{\square}$

(5 marks)

Name: _____ **Class:** _____ **D**

4. Fill in the blanks with these numbers. You may use a number more than once.

2 5 7 8 9 30

(a) _____ , _____ and _____ are **even** numbers.

(b) _____ is the **cube** of 2.

(c) _____ is a **factor** of 21.

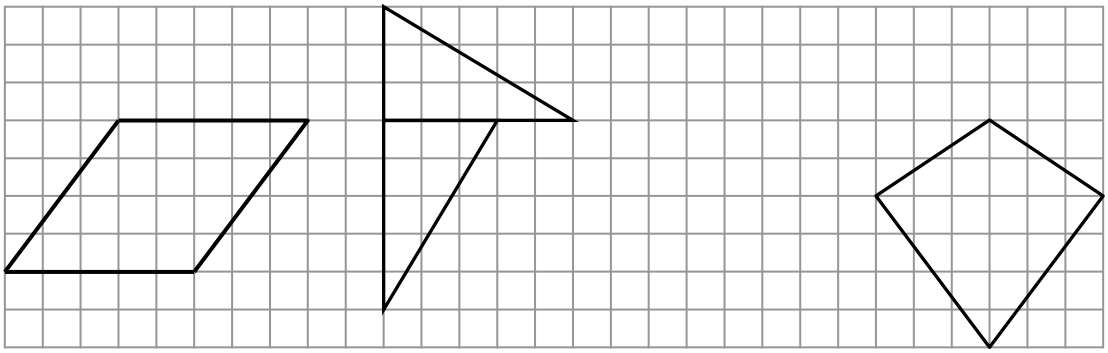
(d) _____ × _____ = 45.

(e) _____ is a **multiple** of 6.

(f) _____+ _____ − _____ = 10.

(11 marks)

5.



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

(b) **Translate** the **kite** 7 left and 3 up.

(c) Underline the correct answer.

The **transformation** from one right-angled triangle to the other is a:

Reflection **Translation** **Rotation**

Ans_____

(5 marks)

6. (a) Write in order, the **smallest first**:

2·6 , 2·06 , 20·6 , 20·06

_____ _____ _____ _____

(b) Work out :

$$\frac{5}{8} + \frac{1}{8} - \frac{3}{8}$$

Ans $\frac{\square}{\square}$

(c) (i) Use your calculator to work out:

17·9 × 2·4

Ans_____

(ii) Now write your answer correct to the **nearest whole number.**

Ans_____

(6 marks)

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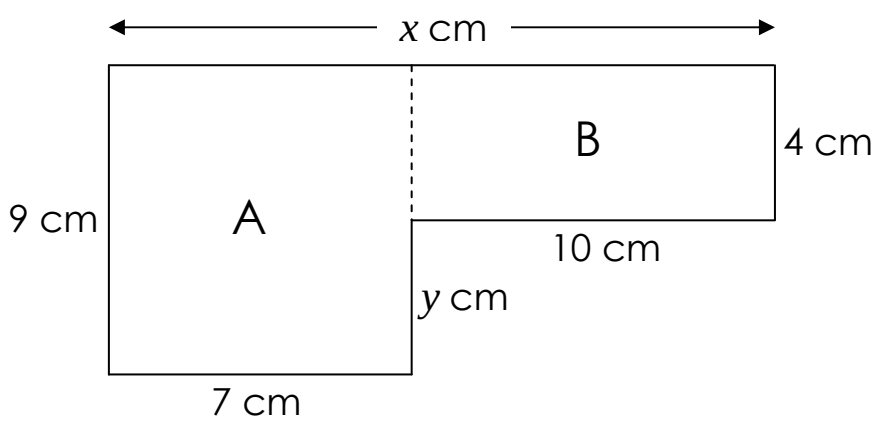
7. (a) Complete:

(i) 3·4 litres = 3·4 × _____ = _____**ml**

(ii) 425 cm = 425 ÷ _____ = _____m

(b)



(i) What is the length marked x cm ?

Ans x =_____cm

(ii) What is the length marked y cm ?

Ans y =_____cm

(iii) Work out the **perimeter** of the whole shape.

Ans_____cm

(iv) Complete:

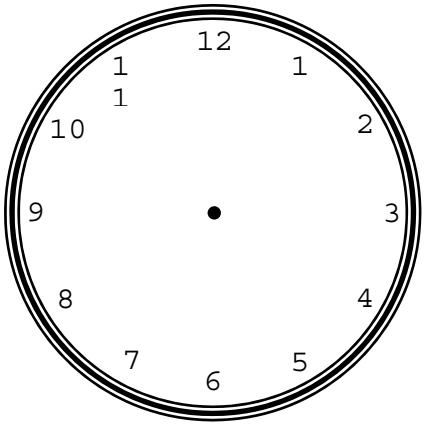
Area of A = _____×_____ = _____cm^2

Area of B = _____×_____ = _____cm^2

Total Area = _____cm^2

(12 marks)

8. (a) Draw the hands on the clock to show 5.15 pm.



(b) Write the time 5.15 pm as seen on a **24-hour clock**.

Ans_____

(c) A football match starts at 5.15pm.
It takes 1 hour 45 minutes to finish.
At what **time** does it finish?

Ans_____

(5 marks)

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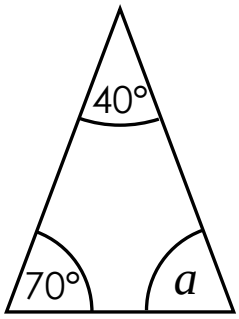
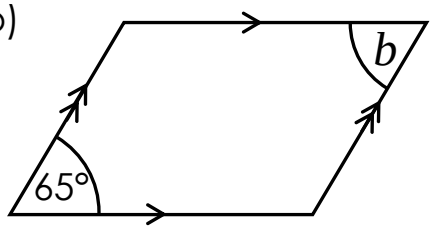
9. (a)



Work out the size of the angle marked a.

Ans a =_____ °

(b)



Write down the size of the angle marked b.

Ans b =_____ °

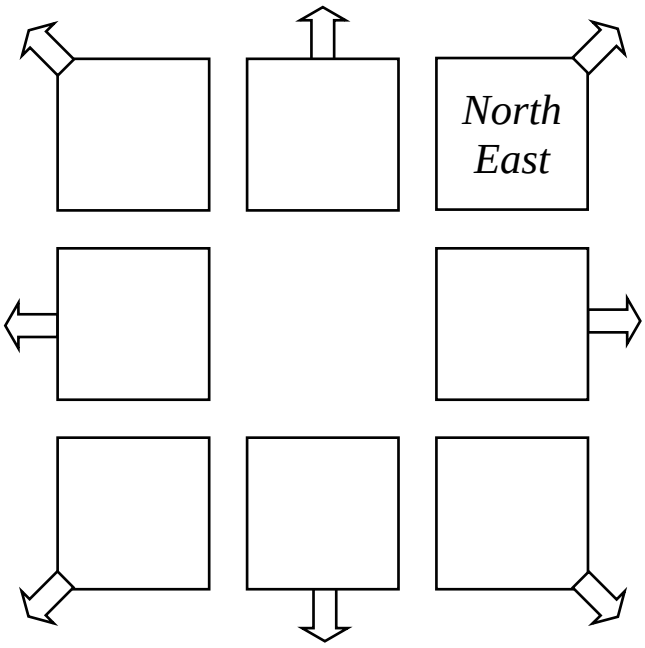
(c) **Underline** the two **correct** words.
The shapes above are:

rectangle, rhombus, isosceles triangle, kite, parallelogram.

(4 marks)

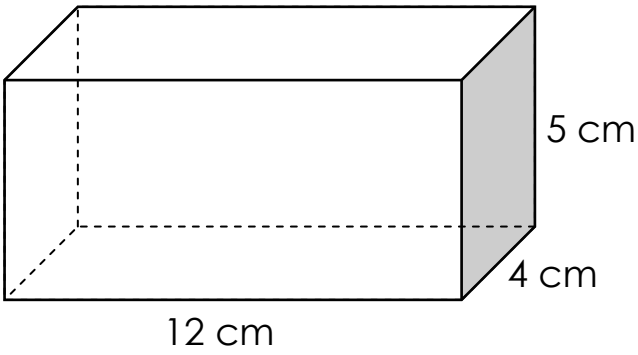
10. Fill in the squares with the following words:

North, South, East, West, North West, South West, South East.



(7 marks)

11. Work out the **volume** of the cuboid.



Ans_____cm^3

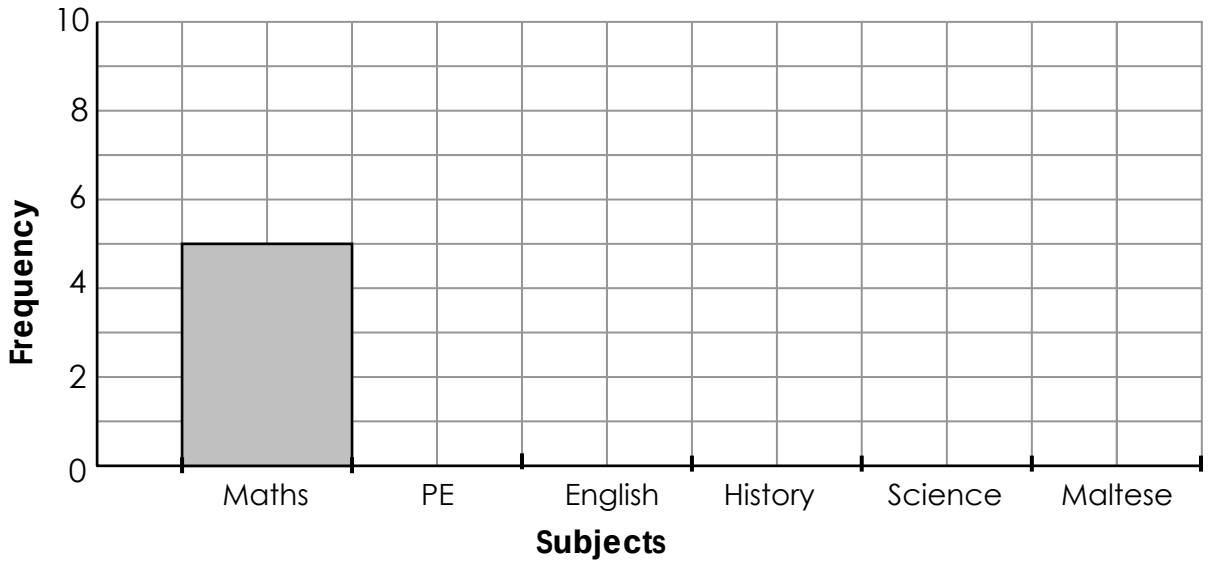
(3 marks)

12. The following are the **favourite** subjects of a group of 30 students.

PE	History	Science	Maths	Maths
Maths	English	Science	PE	Maths
PE	PE	English	Science	History
Maths	PE	Science	History	Maltese
History	Maltese	Science	PE	PE
PE	PE	English	Science	PE

(a) Complete the following **frequency table** and **bar chart**.

Subject	***Tally***	***Frequency***
Maths		
PE	~~IIII~~ ~~IIII~~	10
English		
History		
Science		
Maltese		
	Total	30



(b) (i) Which subject is the **mode** ?

Ans_____

(ii) Which is the **least favourite** subject ?

Ans_____

(8 marks)