

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2009

Directorate for Quality and Standards in Education
Educational Assessment Unit

FORM 3

MATHEMATICS SCHEME D
Non-Calculator Paper

TIME: 30 minutes

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_____

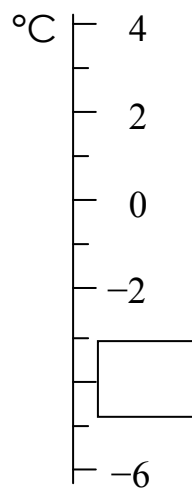
(b) Work out:

$$958 - 637$$

Ans_____

(3 marks)

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



(b) Complete:

1 , 3 , 5 , 7 , _____ .

(2 marks)

Name: _____

Class: _____

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

Ans _____ grams

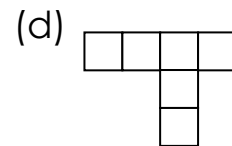
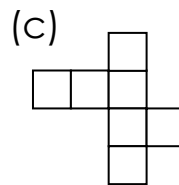
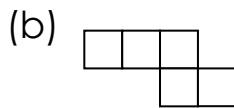
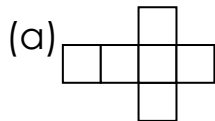
(b) Work out:

$$\frac{1}{4} \text{ of } \text{€}128$$

Ans € _____

(3 marks)

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



Ans _____

(1 mark)

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

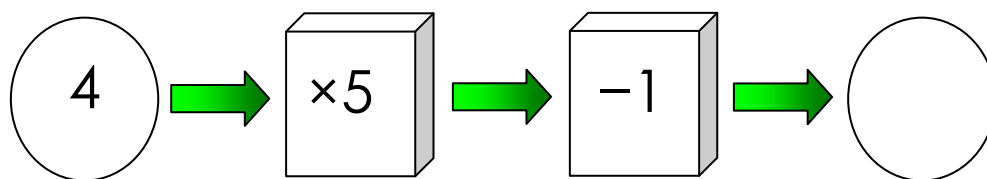
Ans _____

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

Ans $x =$ _____

(2 marks)

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



(2 marks)

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

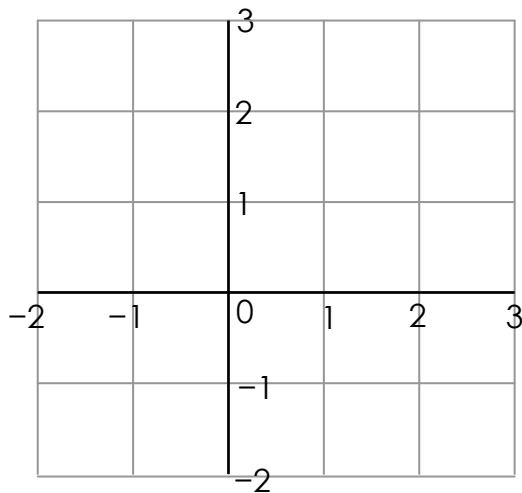
120

Ans _____

(3 marks)

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.



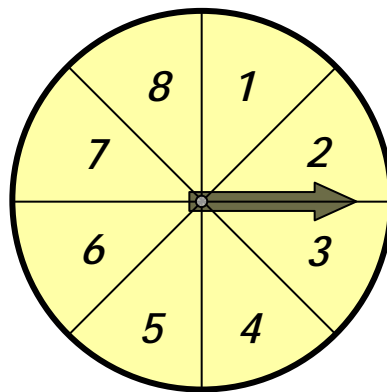
(c) Write down the coordinates of point C.

Ans(,)

(3 marks)

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)

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

$$192 \div 6$$

$$\begin{array}{r}
 6 \overline{) 192} \\
 \underline{- 60} \quad \dots 10 \times 6 \\
 132 \\
 \underline{- \quad} \quad \dots 10 \times 6 \\
 \quad \quad \underline{\quad} \\
 \quad \quad \underline{- \quad} \quad \dots 10 \times 6 \\
 \quad \quad \quad \underline{\quad} \\
 \quad \quad \quad \underline{- \quad} \quad \dots \quad \times 6 \\
 \quad \quad \quad \quad \underline{\quad} \\
 \quad \quad \quad \quad \quad 0
 \end{array}$$

Ans _____

(5 marks)

SECONDARY SCHOOL ANNUAL EXAMINATIONS 2009

Directorate for Quality and Standards in Education
Educational Assessment Unit

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**?

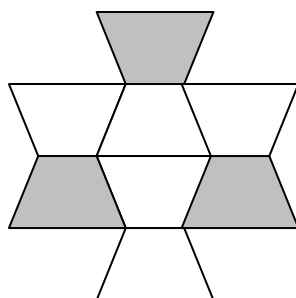
3 4 6 7 9

Ans _____

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

Ans _____

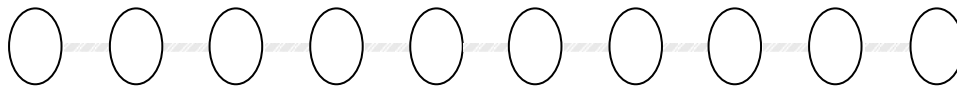
(c) What **fraction** of the shape is shaded?



Ans $\frac{\boxed{}}{\boxed{}}$

(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?

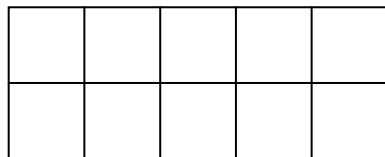
Ans_____km

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

Ans_____km

(5 marks)

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: _____

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.

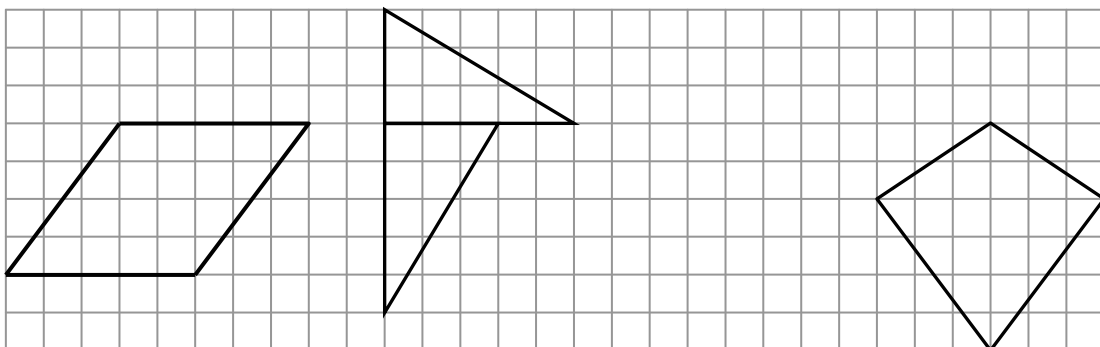
(d) _____ \times _____ = 45.

(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

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

$$17.9 \times 2.4$$

Ans _____

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

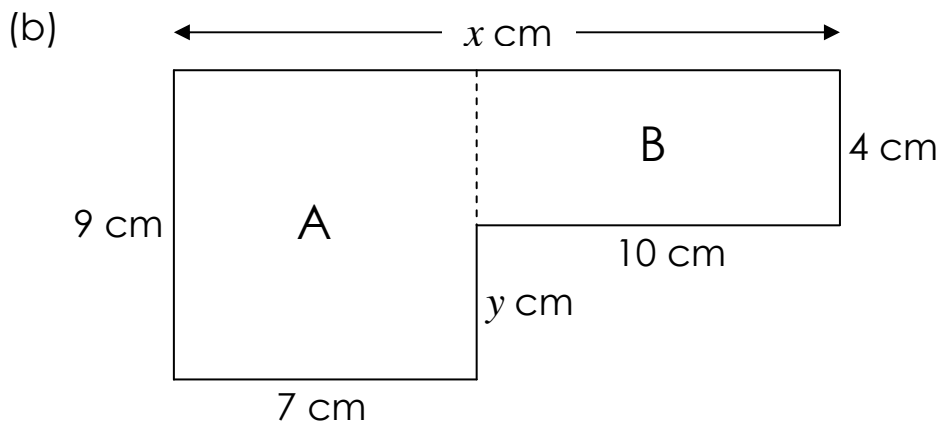
Ans _____

(6 marks)

7. (a) Complete:

(i) 3.4 litres = $3.4 \times$ _____ = _____ **ml**

(ii) 425 cm = $425 \div$ _____ = _____ **m**



(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:

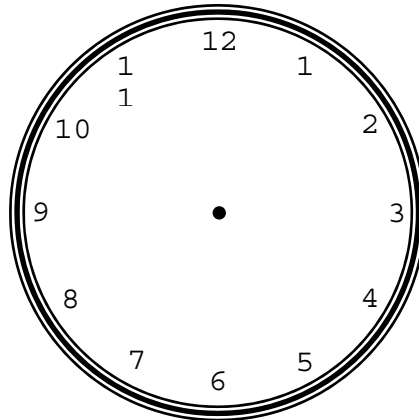
Area of A = _____ \times _____ = _____ cm^2

Area of B = _____ \times _____ = _____ cm^2

Total Area = _____ cm^2

(12 marks)

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



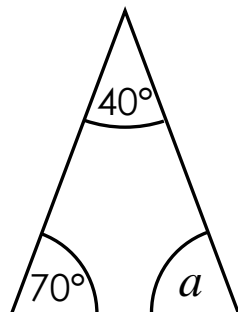
- (b) Write the time 5.15 pm as seen on a **24-hour clock**.

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)

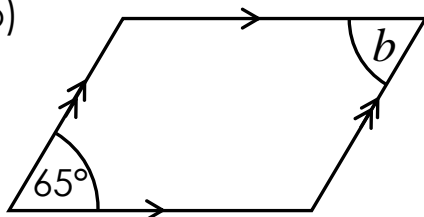
9. (a)



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.

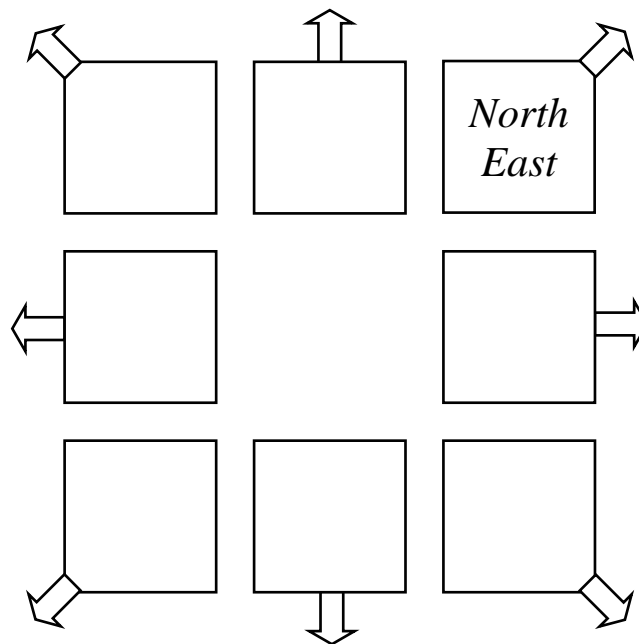
The shapes above are:

rectangle, rhombus, isosceles triangle, kite, parallelogram.

(4 marks)

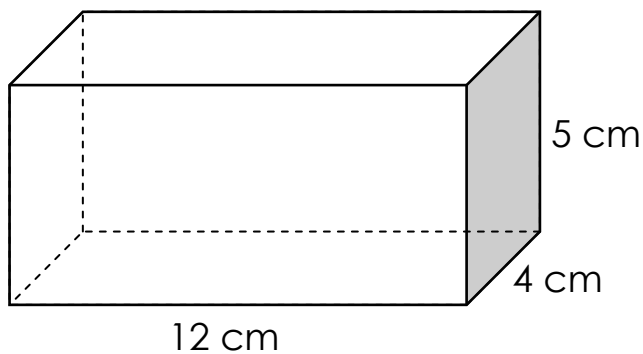
10. Fill in the squares with the following words:

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



(7 marks)

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



Ans _____ cm³

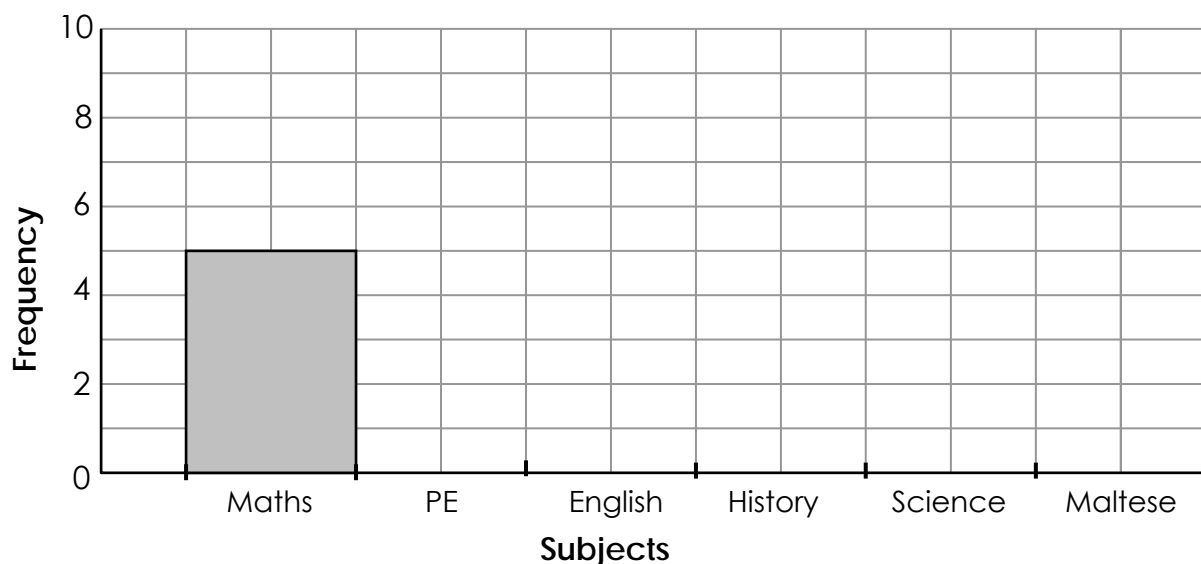
(3 marks)

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**.

<i>Subject</i>	<i>Tally</i>	<i>Frequency</i>
Maths		
PE		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)