

FORM 4 MATHEMATICS (Non Calculator Paper) TIME: 30 minutes

Question	1	2	3	4	5	6	7	8	9	10	11	12	Total
Mark													

Name: _____

Class: _____

INSTRUCTIONS TO CANDIDATES

- **Answer ALL questions.**
 - **This paper carries a total of 20 marks.**
 - **Calculators and protractors are NOT ALLOWED.**
-

1. **13,267** people attended a concert.

Give this number correct to:

a) the nearest **hundred** = _____

b) the nearest **ten** = _____

c) the nearest **thousand** = _____

(3 marks)

2. **Complete** the **next two terms** of the sequence given below.

1, 3, 6, 10, _____, _____

(2 marks)

3. Look at the following set of numbers.

25 48 27 32 13

Use these numbers to choose:

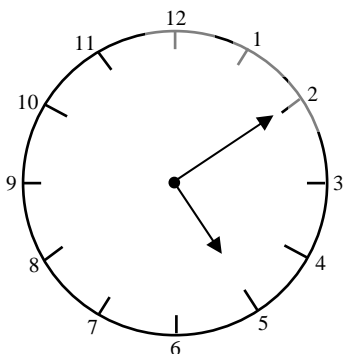
a) a **prime** = _____

b) a **square** = _____

c) a **cube** = _____

(3 marks)

4. Write down the **time** shown by the clock.



(1 mark)

5. Mark bought a shirt during a sale. It was sold at the reduced price shown.

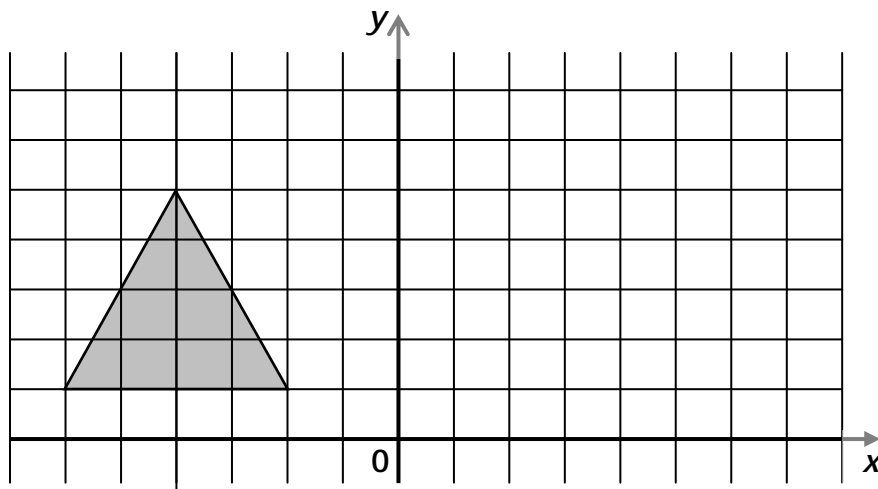


How much money did Mark **save**?

€ _____

(2 marks)

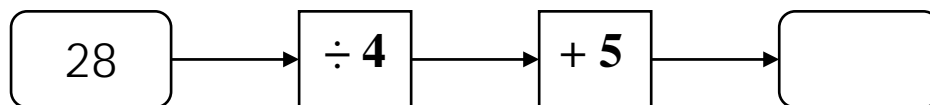
- 6.



Translate the triangle by moving it **9** squares to the **right** and **2** squares **up**.

(1 mark)

7. **Complete** the number machine.



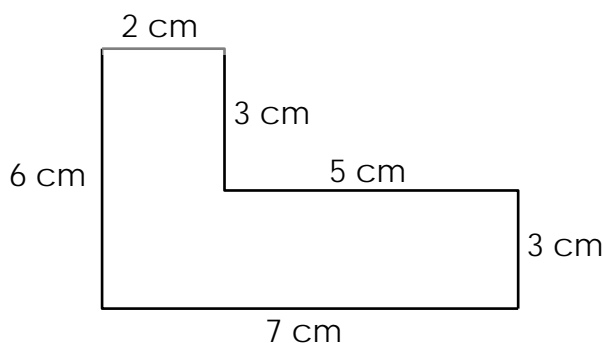
(1 mark)

8. **Solve** the equation to find the **value of m** .

$$3m - 4 = 11$$

(2 marks)

9. Work out the **perimeter** of this shape.



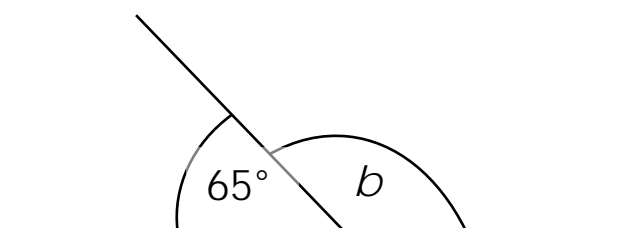
_____ cm

(1 mark)

10. There are **24** students in a class. $\frac{1}{3}$ of the students study Italian. Work out the **number of students** studying Italian.

(2 marks)

11. Work out the **size** of angle b .



(1 mark)

12. Choose the correct word from the list below.



It is _____ to get a five (5) on tossing a
dice.

impossible

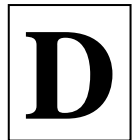
unlikely

likely

certain

(1 mark)

END OF PAPER



FORM 4

MATHEMATICS (Main Paper)

TIME: 1h 30min

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	Total Main	Non Calc	Global Mark
Mark																

DO NOT WRITE ABOVE THIS LINE

Name _____

Class _____

- **Answer all questions.**
- **This paper carries 80 marks.**
- **Calculators and mathematical instruments are allowed but all necessary working must be shown.**

1. a) **Fill in** to change the units of the following:

$1.2 \text{ cm} = 1.2 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ mm}$
$6.5 \text{ kg} = 6.5 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ g}$
$2\frac{1}{2} \text{ days} = 2.5 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ hours}$

b) **Work out** the following:

$25 \times 6 = 25 \times 2 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
$7^3 = 7 \times 7 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
$3.5 \times 10^2 = 3.5 \times 10 \times 10 = \underline{\hspace{2cm}}$

(6 marks)

2. **Match** each calculation to its correct answer. The first one is done for you.

$4 \times -2 + 15$

$10 - 3 \times 2$

$20 \div (3 + 1)$

$(17 - 5) \div 4$

5

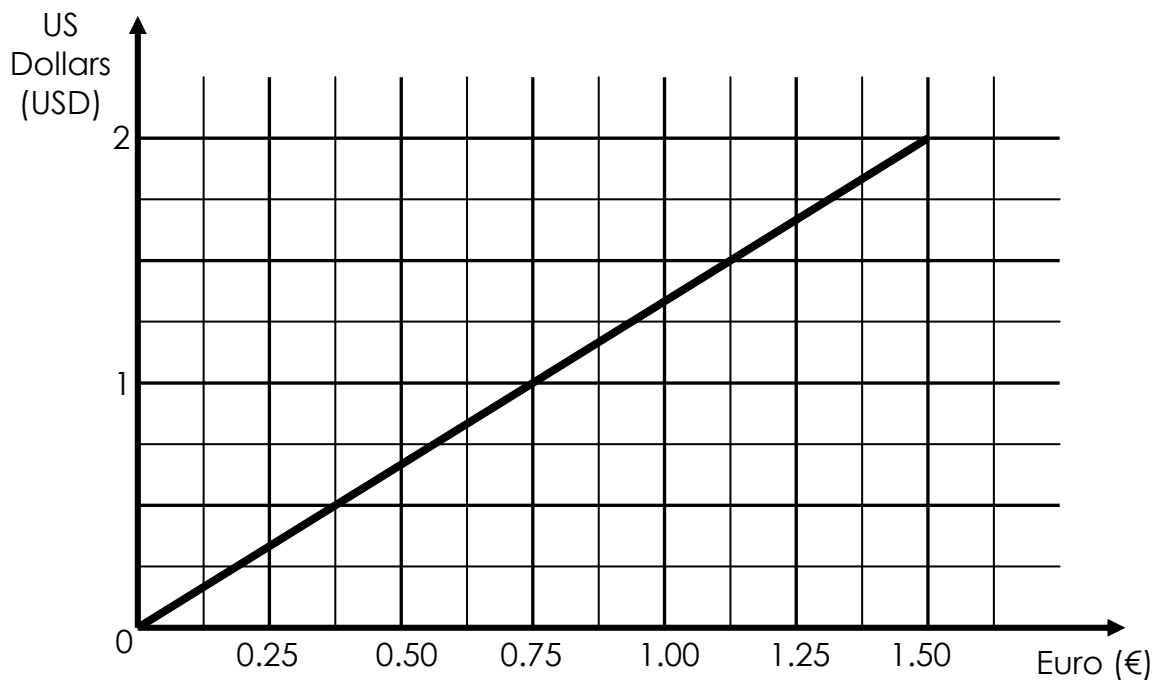
7

3

4

(3 marks)

3. The graph changes US Dollars (USD) to Euro (€).



a) Use the graph to **fill in**:

i) 1 **USD** = € _____.

ii) €1.50 = _____ **USD**. b) **Work out** the value of 50 US Dollars (USD) in Euro (€).

50 **USD** = € _____.
(4 marks)

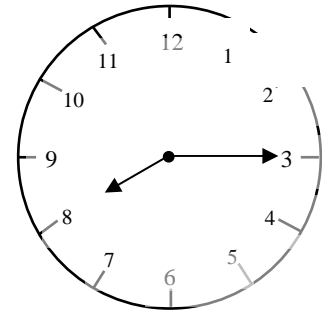
Name _____

Class _____

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4. A film **starts** at **8.15 p.m.** It is 2 hours 30 minutes long.

a) **Work out** the time the film **finishes**.



_____ p.m.
(12-hour clock)

_____ : _____
(24-hour clock)

b) The film **includes** a 15 minute **interval**.

Without the interval the film is _____ hours _____ minutes long.

c) **Fill in** and **simplify** the ratio.

Interval in minutes : **Film** in minutes

_____ : _____

_____ : _____

(7 marks)

5. a) Make **equivalent** fractions.

i) $\frac{5}{8} = \frac{\quad}{24}$

ii) $\frac{3}{4} = \frac{\quad}{24}$

b) Is the following statement **true** or **false**?

$\frac{5}{8}$ is **greater** than $\frac{3}{4}$

c) Find a **fraction** that lies **between** $\frac{5}{8}$ and $\frac{3}{4}$.

(5 marks)

6. This is John's **telephone bill** for May 2011.

JOHN VELLA
5, BLOCK B, MAIN STR.
VALLETTA

	NUMBER OF CALLS	COST IN EURO (€)
MONTHLY RENTAL	/	6.35
LOCAL CALLS	78	14.04
MOBILE CALLS	12	3.84
TOTAL COST	/	_____

a) Work out the **total cost** of John's bill.

€ _____

b) What is the **cost** of **one local call**?

€ _____

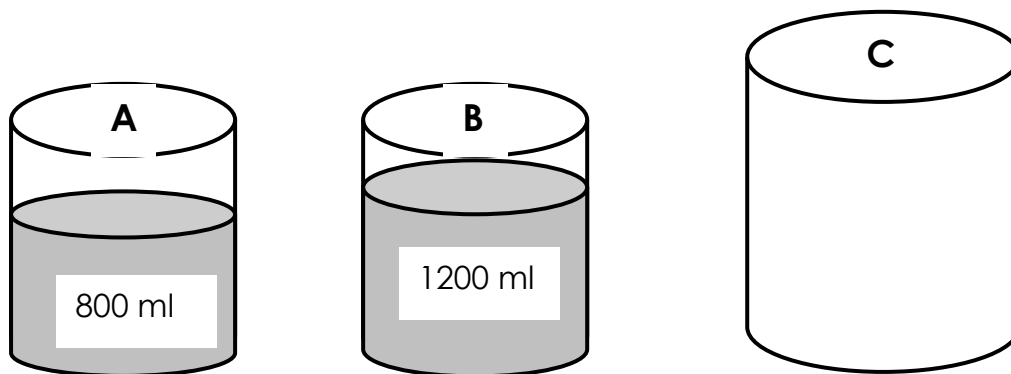
c) **Work out** the **cost** of **one mobile call**.

€ _____

d) A mobile call costs _____ euro cent _____
(more/less) than a local call.

(8 marks)

7. The diagrams show three containers.
Container **C** is empty but it holds **2.5 litres** when **full**.



a) Each container is a _____ (cone, cylinder, cube).

b) The **total** capacity of water in containers **A** and **B** is _____ ml.

c) **How much** water must be poured from container **B** into **A** so that they have the same amount of water?

_____ ml

d) All the water in the two containers **A** and **B** is poured into container **C**.

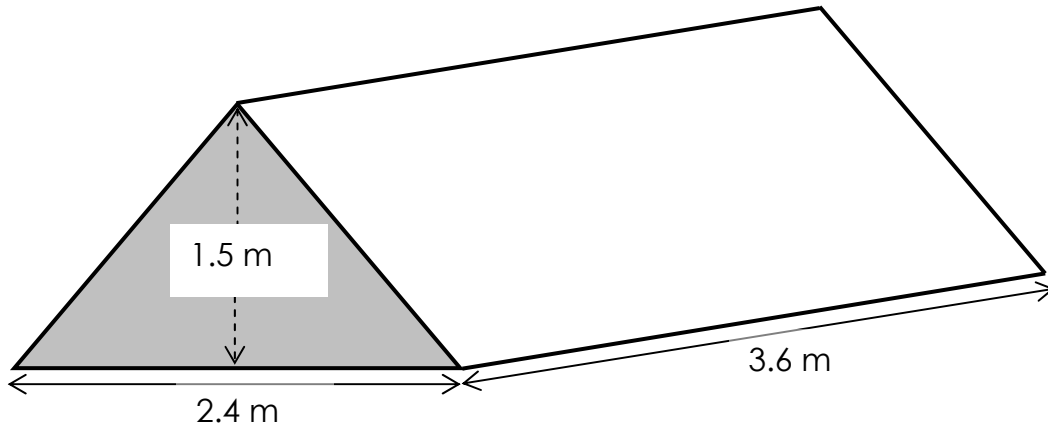
i) Container **C** will have _____ **litres** of water.

ii) Container **C** is **not full**. How many more litres of water does it need so that it is full?

_____ litres

(8 marks)

8. Alan has a **tent**. Its entrance is in the shape of a **triangle**.



- a) Using $A = \frac{1}{2}bh$, work out the **area** of the **triangle**.

_____ m²

- b) Work out the **volume** of the tent.
(Use **Volume = area × length**)

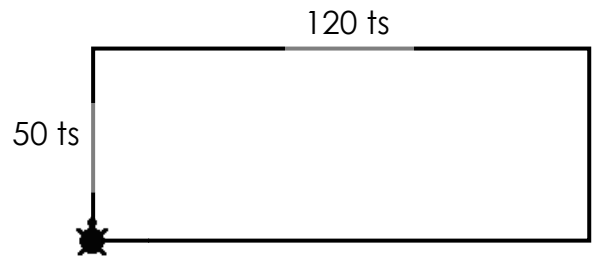
_____ m³

- c) The **volume** of the tent correct to **1 decimal place** is

_____ m³.

(5 marks)

9. Jessica uses **LOGO** commands to draw a **rectangle**. The sides of the rectangle are 50 turtle steps (ts) and 120 turtle steps.

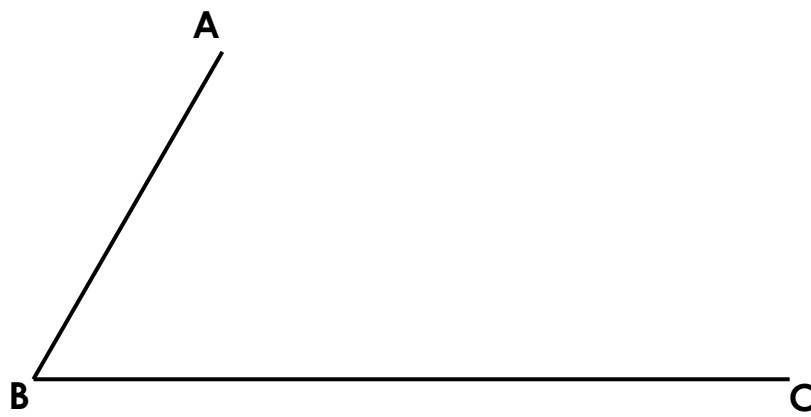


Complete the commands:

PD REPEAT _____ [FD 50 RT _____ FD _____ RT _____]

(4 marks)

10. **AB** and **BC** are two lines.



- a) Use a ruler to **draw** line **AC** to form triangle **ABC**.
 b) Use a **ruler** to measure the **length** of each side of the triangle.

AB = _____ cm **BC** = _____ cm **AC** = _____ cm

- c) Use a **protractor** to measure the **angles** of the triangle.

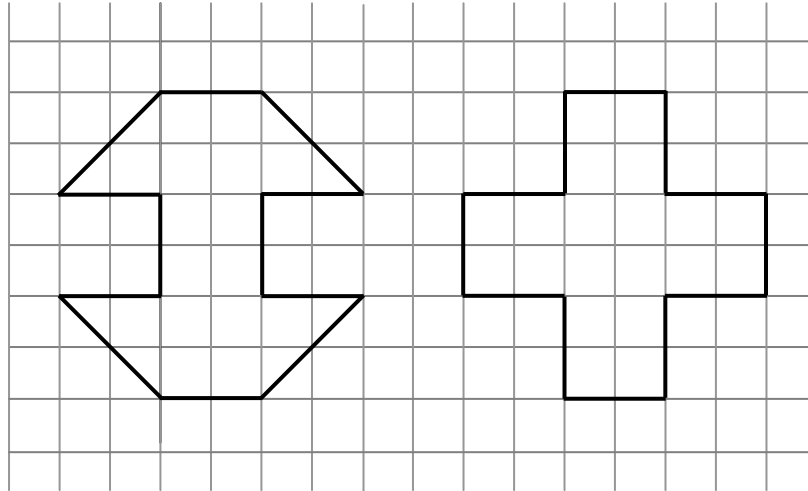
$\angle A =$ _____ $^{\circ}$ $\angle B =$ _____ $^{\circ}$ $\angle C =$ _____ $^{\circ}$

- d) **Underline** the correct answer.

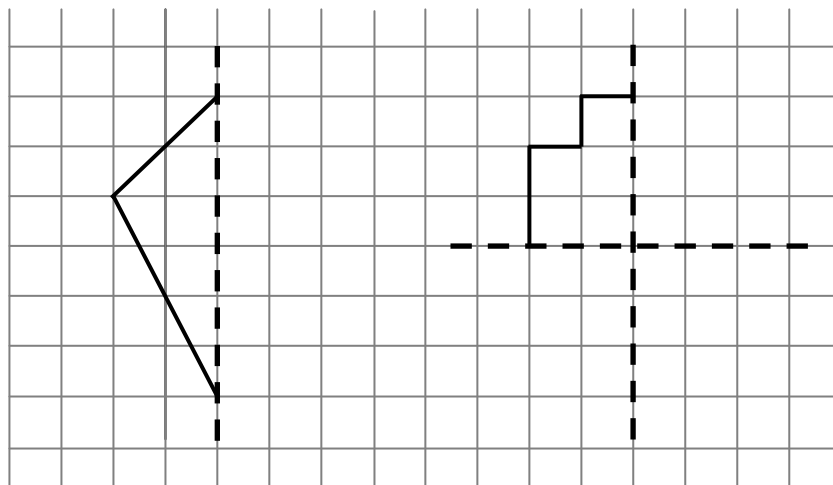
Triangle **ABC** is (isosceles, equilateral, right-angled).

(8 marks)

11. a) **Draw** the **lines of symmetry** of the following shapes.



b) **Complete** the figures below to make them symmetrical about the dotted lines.

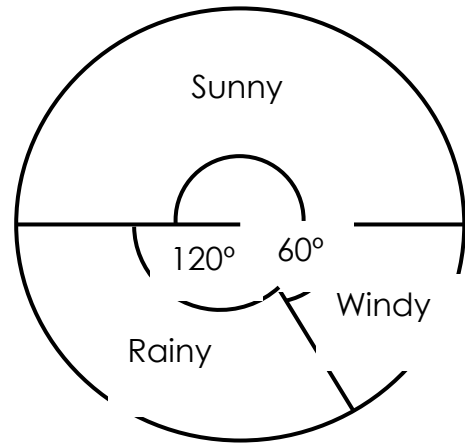


(8 marks)

12. The pie chart shows what the **weather** was like during April.

Fill in:

- a) April has _____ days.
- b) The angle representing the **sunny** days is _____°.
- c) **Work out** the number of **sunny** days.



_____ days

- d) Work out the number of **windy** days.

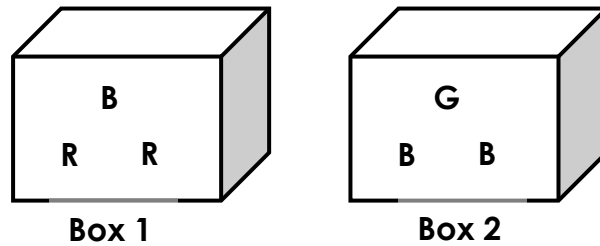
_____ days

- e) **Underline** the correct words.

During April the number of (sunny, rainy, windy) days was **double** the number of (sunny, rainy, windy) days.

(8 marks)

13. Martin has **two** boxes each containing 3 marbles.



Box 1 has 2 **red (R)** marbles and one **blue (B)** marble.

Box 2 has 2 **blue (B)** marbles and one **green (G)** marble.

Martin picks a marble from each box at random.

a) **Complete** the possibility space.

		Box 2		
		Blue (B)	Blue (B)	Green (G)
Box 1	Blue (B)	(B, B)	(B, B)	(____, ____)
	Red (R)	(R, B)	(R, B)	(____, ____)
	Red (R)	(R, B)	(____, ____)	(____, ____)

b) Use the possibility space to find:

i) the **probability** that the marbles are **both blue**

ii) the **probability** that **one** of the marbles is **green**.

(6 marks)

END OF PAPER