END OF PRIMARY BENCHMARK

2015

MATHEMATICS

WRITTEN PAPER

80 marks

1 hour 30 minutes

1. **Work out.**

a. 435 + _____ = 1000 _____	b. 412 − 231 = _____ _____
c. 14 × 20 = _____ _____	d. 336 ÷ 24 = _____ _____

2. Write numbers in each circle to make each line add up to **150**.
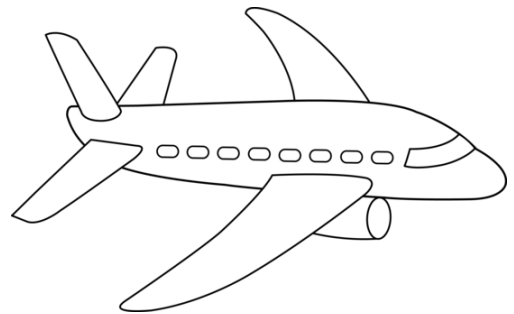
79 ⃝ ⃝ ⃝ 34
⃝   ⃝
⃝ 26 18 ⃝
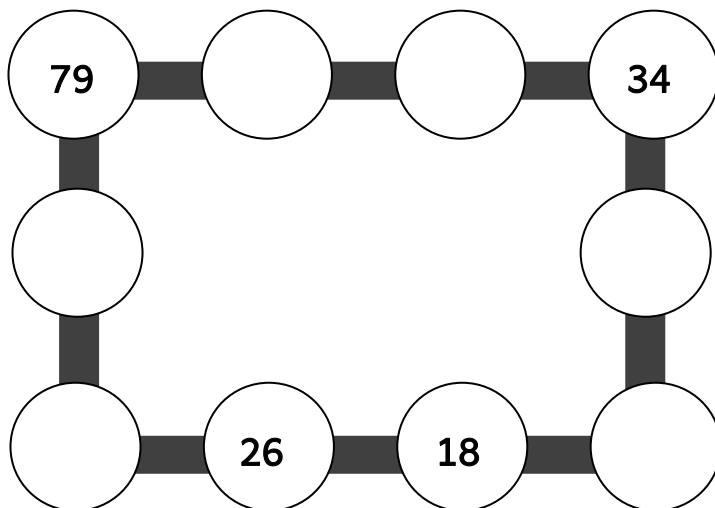
3. Look at the shape below.

    Work out the **area** of the **shaded part**.

1 cm

1 cm
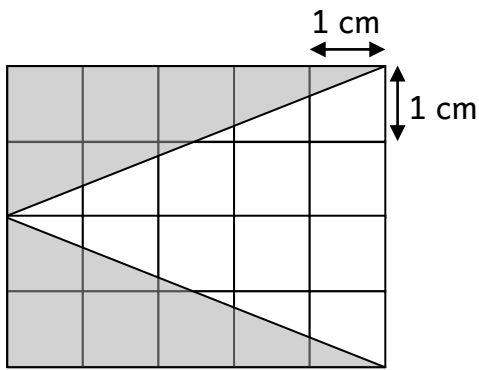
You can show your working here.

_____ cm²

4. There are **108 people** on a plane.

    Half are **men**.

    A **quarter** are **women**.

    The rest are **children**.

    How many children are on the plane?

You can show your working here.

_____ children

5. Keith finds these coins in his money box.

Coin	2c	5c	20c	€1
Number of Coins	10	4	8	5

a. **Work out** the **total amount** of money that Keith has.

> You can show your working here.

€ _____·_____
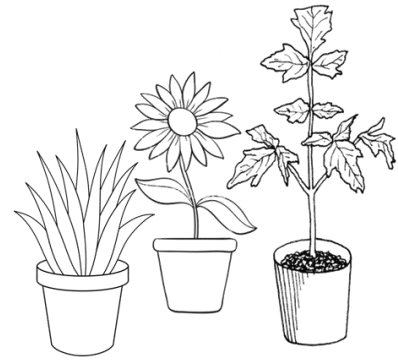
b. Keith wants to buy a book that costs **€10·50**.

How **much more money** does he need to save?

> You can show your working here.

€ _____·_____

6. The table below shows the plants sold by 3 children during a fair.

Name	Number of plants sold
Petra	42
Amanda	31
Isaac	38

a. Work out the **average number of plants sold**.

You can show your working here.

_____ plants

b. Their teacher sold another **57 plants** during this fair.

How many plants did they sell **in all**?

You can show your working here.

_____ plants

7. Look at the cards below.

   Choose the correct cards to complete the table.

   Note: There are some extra cards.

~~$\frac{1}{4}$~~	~~0·04~~	50%	$\frac{3}{4}$	~~0·5~~	$\frac{1}{5}$
$\frac{4}{100}$	25%	0·25	4%	~~20%~~	0·2
0·75	0·4	~~75%~~	$\frac{1}{2}$	30%	1·4

	decimal numbers		fractions		percentages
a.	0·5	=	☐	=	☐
b.	☐	=	☐	=	20%
c.	☐	=	☐	=	75%
d.	☐	=	$\frac{1}{4}$	=	☐
e.	0·04	=	☐	=	☐

8. Look at the recipe below which makes **10 muffins**.

   Anton, Mary and Lisa make muffins using this recipe.

   Chocolate Muffins Recipe
   200 g flour
   180 g butter
   150 g sugar
   2 eggs
   2 tablespoons chocolate powder

a. Anton makes **25 chocolate muffins**.
   How many kilograms of flour does he use?

   You can show your working here.

   _____ kilograms

b. How many muffins does Mary make with **7 eggs**?

   You can show your working here.
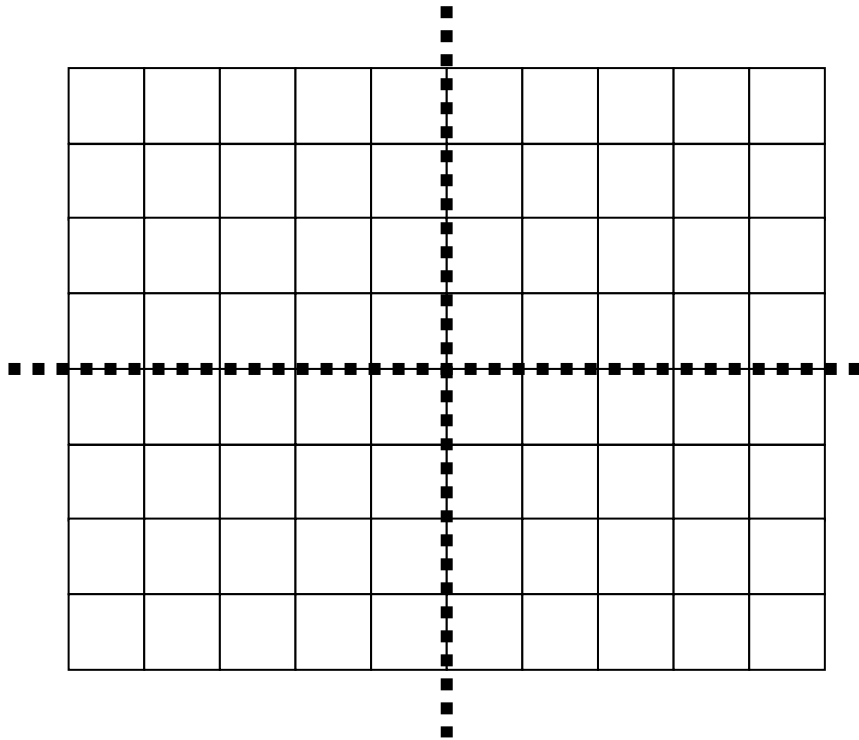
   _____ muffins

c. Lisa uses **75 grams of sugar**.
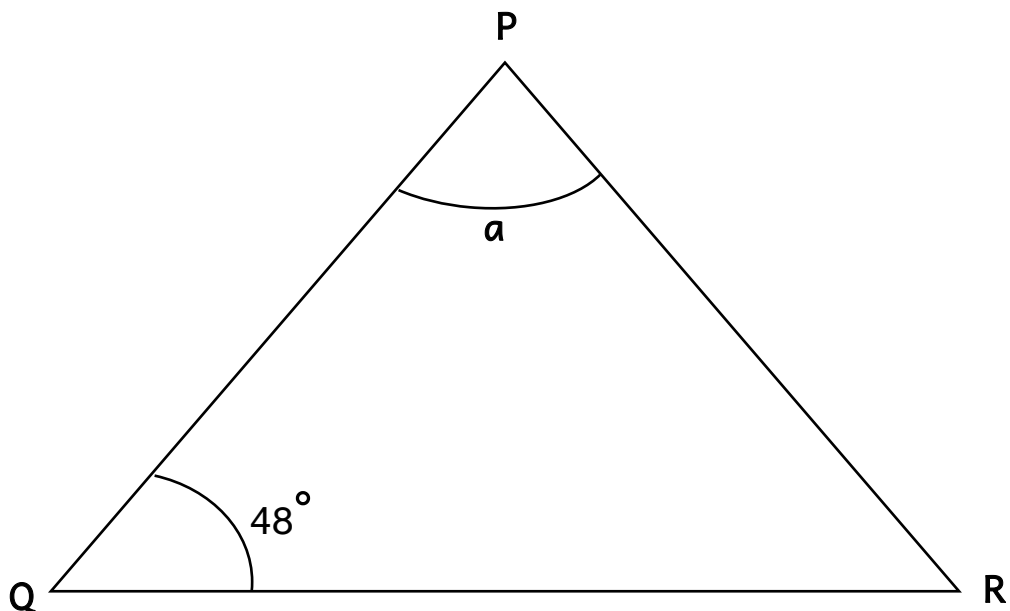   How much **butter** does she use?
   Give your answer in **grams**.

   You can show your working here.

   _____ grams

9a. On the grid below, use a ruler to **draw a shape** that has a **vertical line of symmetry** and **a horizontal line of symmetry**.

b. The triangle below is an **isosceles triangle**.
Side **PQ** and **side PR** are of the **same length**.
Work out the size of **angle a**.

P

a

48°

Q

R

_____ °

10. The following is the amount of water **4 children** drink in one day.

BOYS		GIRLS	
TOM	BRIAN	SILVIA	LORNA
150 $m\ell$	1·05 ℓ	1 ℓ	$\dfrac{3}{4}\ \ell$

a. **Who** drinks the **largest amount** of water? _____

b. Lorna wants to drink as much as Silvia.

   How much more does Lorna need to drink?

   Give your answer in $m\ell$.

   You can show your working here.

   _____ $m\ell$

c. **How much water** do the **boys** drink in total?

   Give your answer in $m\ell$.

   You can show your working here.

   _____ $m\ell$

d. Brian says that **the boys drink more water than the girls**.
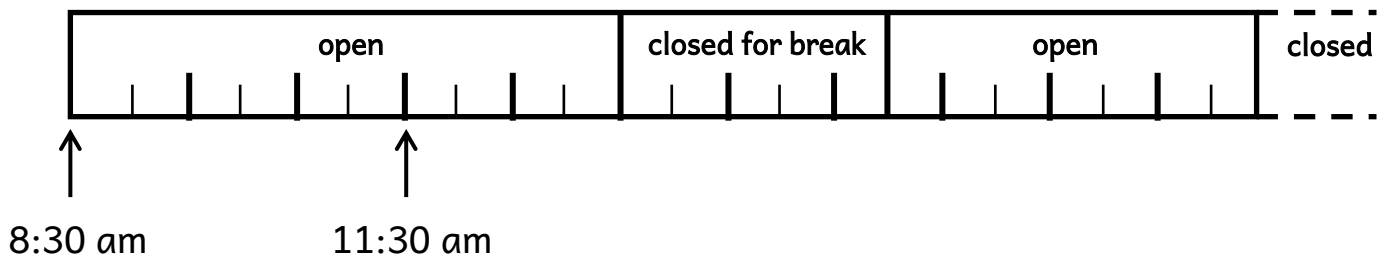
i. Is he right? Tick (✓) the correct answer.   Yes ☐   No ☐

ii. Give a reason for your answer. _____

_____

11. The timeline below shows the daily opening hours of a shop.

open	closed for break	open	closed

↑ 8:30 am   ↑ 11:30 am

a. At what time does the shop **close for break**?

_____ : _____

b. How long does the **shop stay** open during the day?
    Give your answer in **hours and minutes**.

You can show your working here.

_____ hours _____ minutes

c. <u>Underline</u> the correct answer.
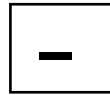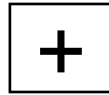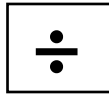
    The shop closes at (quarter to seven,   quarter past seven,

    half past seven) in the evening.

d. How long does the shop stay open **from Monday to Friday**?
    Give your answer in **hours and minutes**.

You can show your working here.

_____ hours _____ minutes

12. Fill in the boxes below with these cards.

$\times$ $\div$ $+$ $-$

Note: Each card can be used more than once.

a. 245 ☐ 512 = 757

b. 4 kg ☐ 2 kg 525 g = 1 kg 475 g

c. 2·5 litres ☐ 450 mℓ = 2·05 litres

d. 2·05 ☐ 5 = 0·41

e. 0·2 ☐ 5 = 1

You can show
your working
here.

13. The bar chart below shows the hair colour of a group of women who take part in a survey.
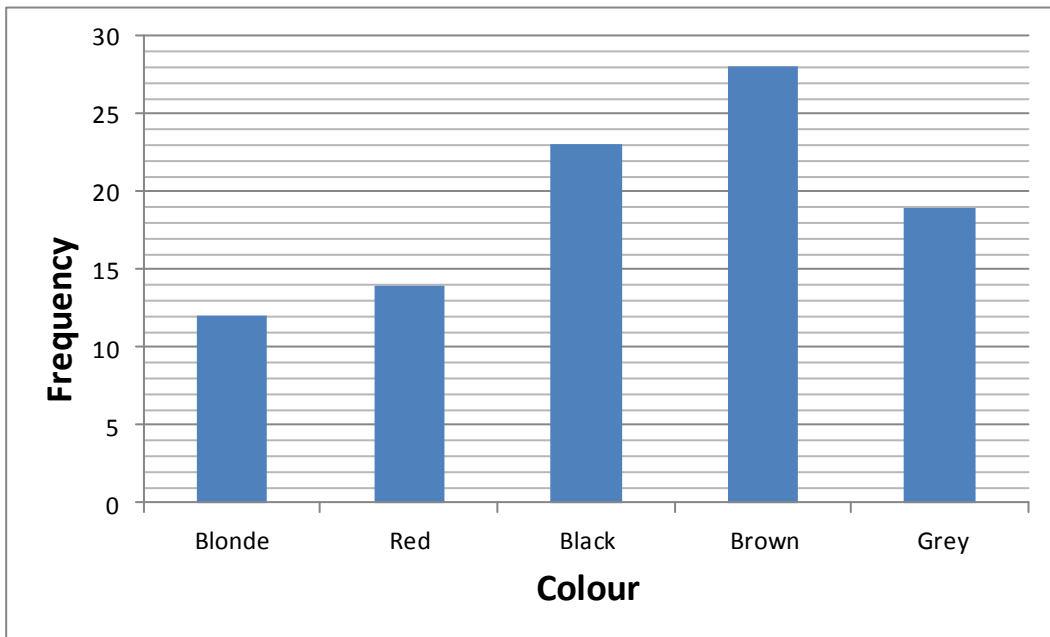
a. Which is the **most common** hair colour?

b. How many women have **red hair**?

_____ women

c. **How many women**, **in total**, take part in the survey?

You can show your working here.

_____ women

d. For taking part in the survey, each woman receives a hairband.

Each hairband costs **50cent**.

What is the **total cost** of the hairbands?

You can show your working here.

€ _____ . _____

14. There is **500 g of coffee** in *a* container.

A shopkeeper then pours **5 bags of coffee**, **each** weighing **1·7 kg** into **the container**.

a. What is the **new weight of the coffee** in the container? Give your answer in **grams**.

You can show your working here.

_____ grams

b. He then packs the coffee into packets.

i. Each packet contains **250 grams**.

How many packets does he pack?

You can show your working here.

_____ packets

ii. The shopkeeper sells **each packet** at **€3**.

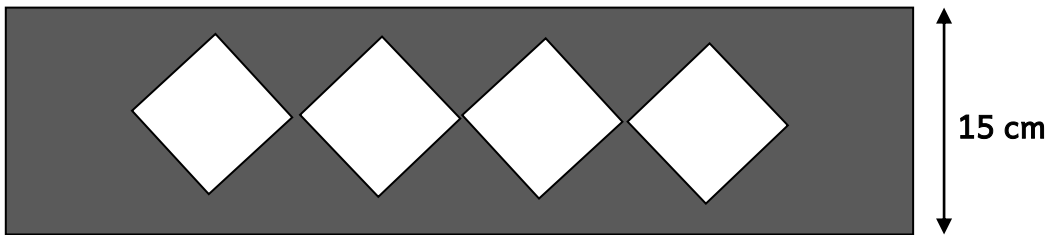How much does the shopkeeper **get after selling all the packets**?

You can show your working here.

€_____·_____

15. The diagram below is made up of **a rectangle** and **four equal squares**.

The breadth of the rectangle is $\frac{1}{4}$ that of its length.

15 cm

a. Work out the **length of the rectangle**.

You can show your working here.

_____ cm

b. Work out the **perimeter of the rectangle**.

You can show your working here.

_____ cm

c. The **total area** of the **four squares** is **144 cm²**.
   What is the **length of each side of the squares**?
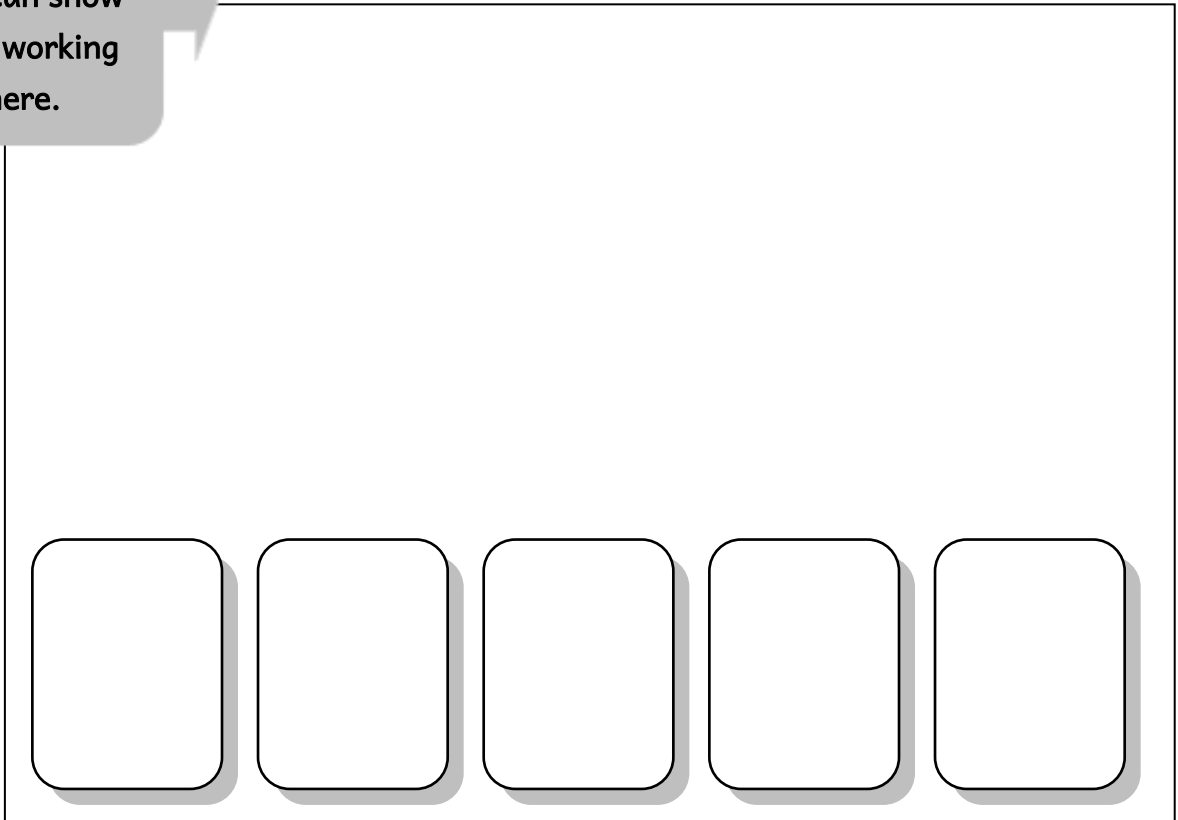
You can show your working here.

_____ cm

16. Jade has a pack of cards numbered **1 to 20**.

- Jade chooses **five different number cards**.

- **Two of the five** numbers are **square numbers**.

- **Two of the five** numbers are **multiples of seven**.

- **Four out of the five** numbers are **even**.

- The **sum of the five numbers** is **less than 45**.

Which **5 number cards** does Jade choose?

You can show your working here.

END OF PAPER