END OF PRIMARY BENCHMARK

2022

MATHEMATICS

WRITTEN PAPER

80 marks

1 hour 30 minutes

1. **Work out.**

a) 314 + 25 = _____	b) 653 − 101 = _____
c) 26 × 14 = _____	d) 420 ÷ 5 = _____

(4 marks)

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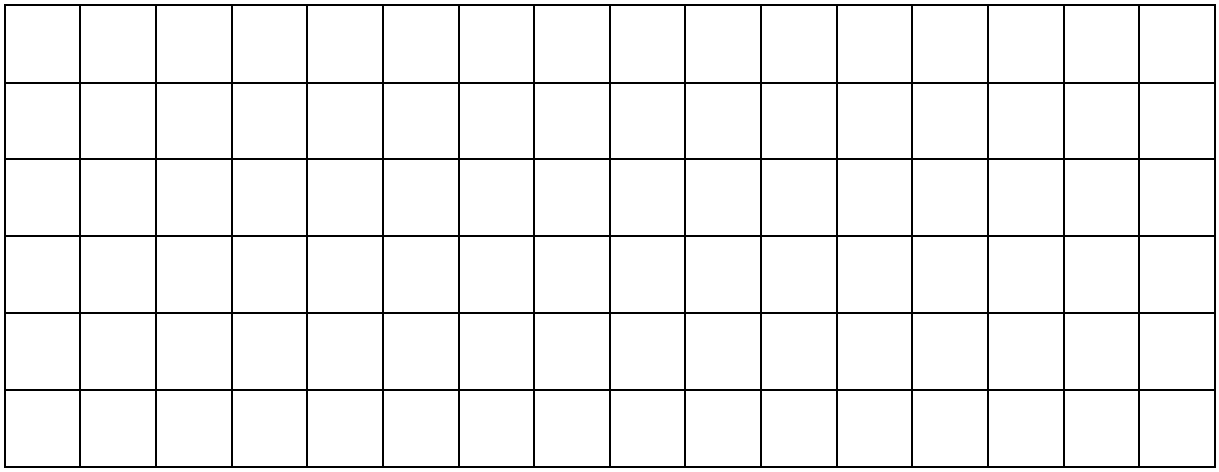
2. Use a ruler to draw a shape on the grid.
   Each square on the grid is 1 cm by 1 cm.
   Follow all the instructions below.

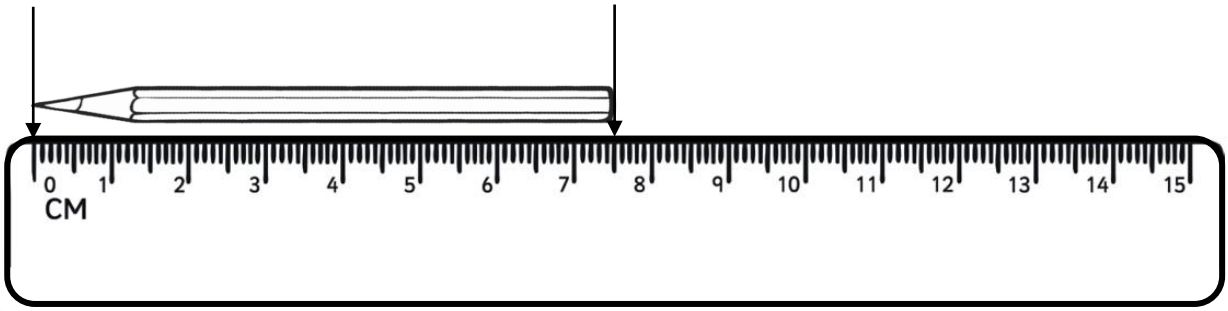
- The shape has **2 lines of symmetry only**.
- The **sum of its angles** is **360°**.
- Its **perimeter** is **24 cm**.



(4 marks)

3a) Use the ruler diagram below to work out the **length of the pencil**.

Note: Do not use your ruler.

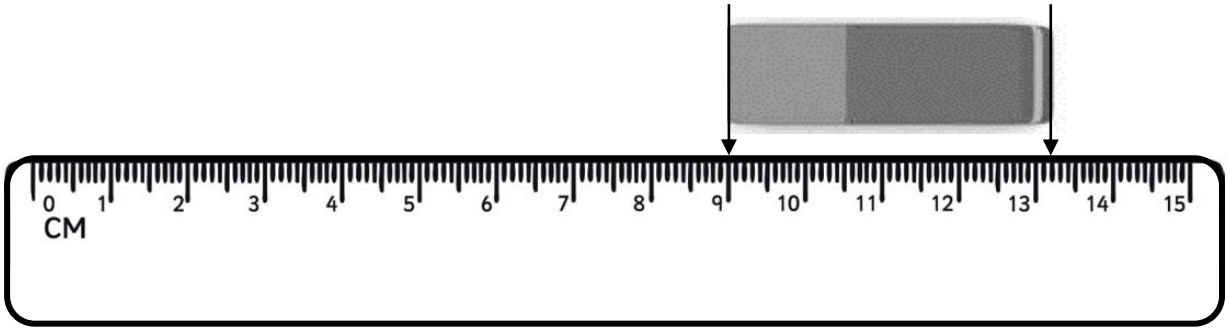


The **pencil** is ____ **cm** **long**.

b) Use the ruler diagram below to work out the **length of the rubber**.

Give your answer in **millimetres**.

Note: Do not use your ruler.



Show your working here.

____ **mm**

(4 marks)

4. Karl's bottle holds **2 litres** of water.
He **drinks two glasses** of water.
Each glass holds **200 *ml***.

a) How many **millilitres** of water are **left** in the bottle?

Show your working here.

ml

b) During the day Karl drinks more water from the **remaining water in the same bottle** until it is **empty**.
He uses the same glass as before.
How many **more glasses of water** does Karl drink?

Show your working here.

more glasses

(4 marks)

5. Five teams are participating in a tournament.
The table below shows the score obtained by each team.

Team Yellow	Team Orange	Team White	Team Black	Team Purple
24 points	0 points	16 points	12 points	8 points

a) Work out the **mean score**.

Show your working here.

points

b) Boys and girls are participating in this tournament.

$\frac{2}{3}$ **of the players are girls** and **21 are boys**.

How many players are there in the tournament **in all**?

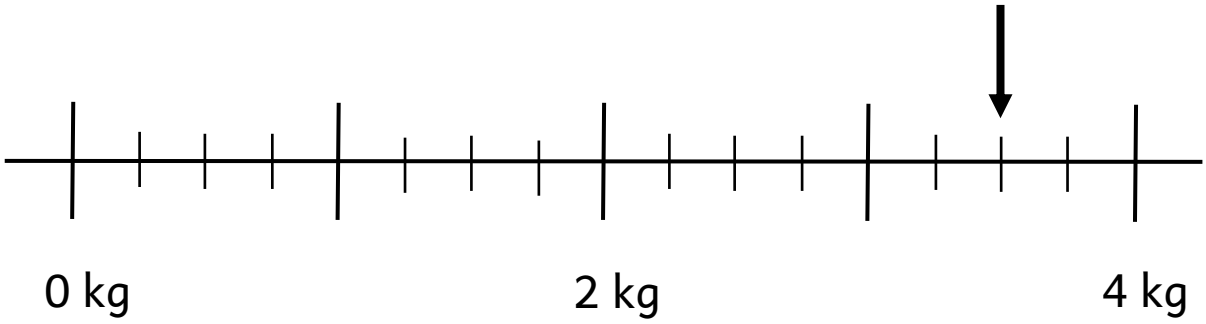
Show your working here.

players

(5 marks)

6. The diagram below shows the scale of a weighing machine at the Post Office.

The arrow on the scale shows the **total mass** of **3** different packages.



a) The **mass** of the **3** packages is ____ **grams** .

b) The **mass** of package A is **750 grams**.

Draw an arrow (↓) on the scale to show the **mass of package A**.

c) The **mass of package B** is **double the mass of package A**.

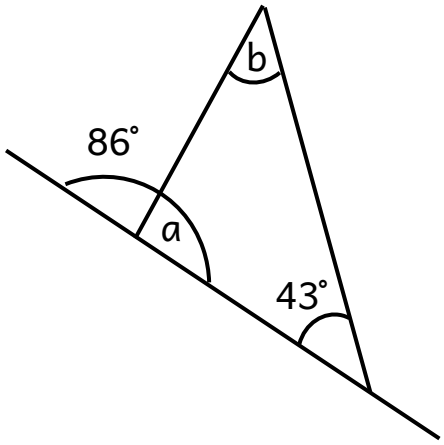
Work out the **mass** of **package C**.

Show your working here.

grams

(5 marks)

7. Look at the diagram below.



a) i. Work out the size of **angle a**. Do not use a protractor.

Show your working here.

°

ii. **Underline** the correct answer.

Angle a is (an acute, an obtuse, a right) angle.

b) Work out the size of **angle b.** Do not use a protractor.

Show your working here.

°

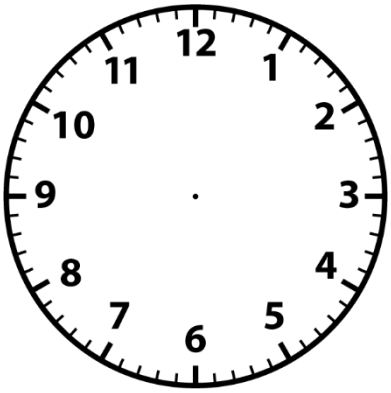
(5 marks)

8. This is a poster of the daily activities held at Sunshine Hotel.

Daily Activities at Sunshine Hotel		
Activity	**Start Time**	**End Time**
Boat Trip to Comino	9:45 am	3:15 pm
Dance Class	11:00 am	12:05 pm
Bowling	2:15 pm	4:00 pm
Water Games	4:00 pm	5:30 pm
Puppet Show	6:00 pm	6:45 pm

a) The **Dance Class** is _____ **minutes long**.

b) **Draw** the hands on the clock to show the **start** time of the **Boat Trip to Comino**.



c) **Which** activity is **1 $\frac{3}{4}$ hours** long?

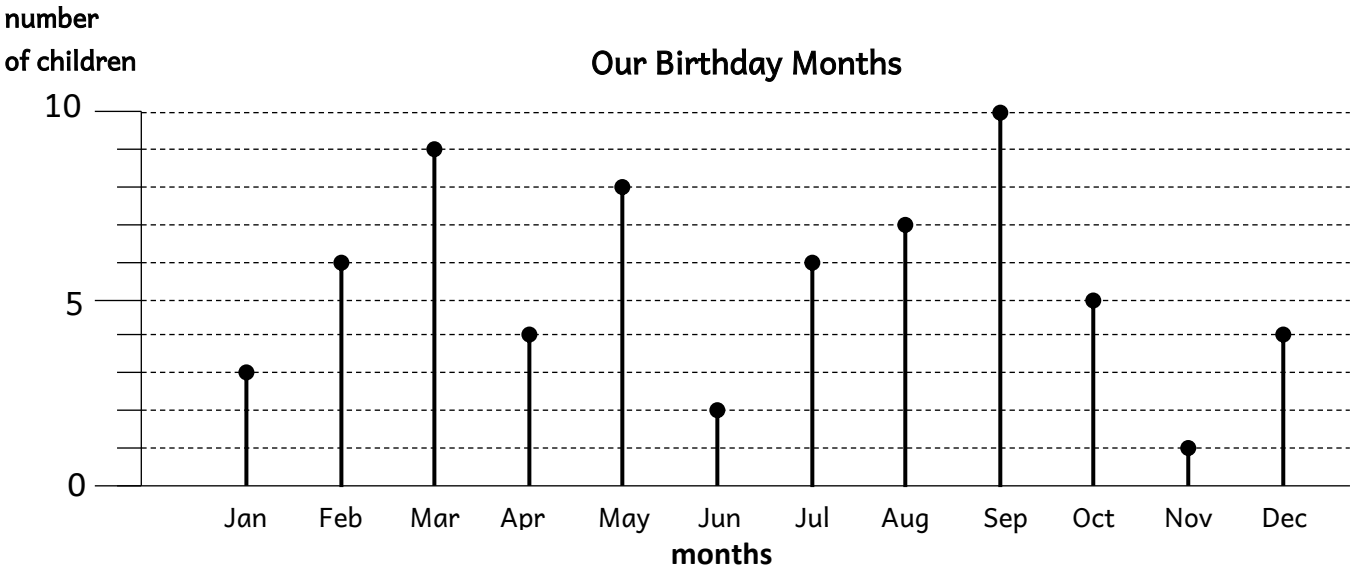
d) Peter arrives **10 minutes before** the start time of the **Water Games**.

At what time does he **arrive**?
Give your answer using the **24-hour clock**.

:

(5 marks)

9. This **bar-line graph** shows the birthday months of some Year 6 children.



a) The tally marks below represent the number of students.

Match the **tally marks** with the correct month:

May •	•
August •	•
December •	•

b) **Fill in** this sentence with the correct **month**:

The number of children born in **July** is **double** the number of children born in ☐ .

c) **Tick (✓)** the **correct one**.

The **total** number of children born in the **first four months** is:

an odd number and a multiple of 11	a factor of 2 and 11	a common multiple of 2 and 11	exactly divisible by 2 but not by 11
☐	☐	☐	☐

(5 marks)

10. Martha goes for a walk and finds this torn receipt on the ground.

Fill in:

a) Martha says that **€10** is enough to buy the items shown on the torn receipt.

Is Martha **right**?

Tick (✓): Yes ☐ No ☐

b) **1 kg of carrots** costs **€** ☐ .

c) **€2·80** is the cost of ☐ **kg** of **onions**.

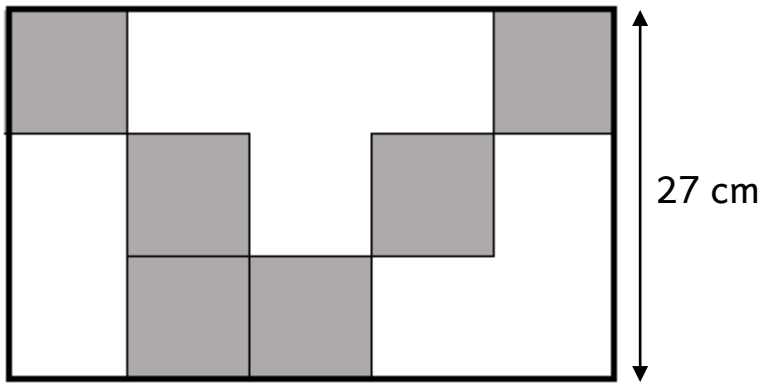
Show your working here.

(5 marks)

11. Clare measures the breadth of a rectangle.

The **breadth** of the rectangle is **27 centimetres**.

Then, Clare draws **6 identical squares** inside the rectangle.



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

Show your working here.

cm

b) Work out the **area** of the rectangle.

Show your working here.

cm^2

(5 marks)

12. Jack and Maria buy some stationery.

a) Jack buys **1 notebook** and **1 pen**.
Jack gets **€1·60 change** from **€5**.
How much does Jack **spend**?

Show your working here.

€

b) Maria buys **2 notebooks** and **1 pen**.
Maria pays **€5·70**.
What is the cost of **1 pen**?

Show your working here.

€

(5 marks)

13a) Peter writes a story over the weekend.

Peter writes:

- $\frac{3}{8}$ of the words on **Friday**.

- $\frac{2}{5}$ of the words on **Saturday**

- **the rest** of the words on **Sunday**.

Peter writes **most** of the words on **Saturday**.

Show working to explain this.

Show your working here.

b) Amy reads a **whole book** over the weekend.

Amy reads **120 pages** on **Friday**.

On **Saturday** she reads **60 more pages than on Friday**.

On **Sunday** she reads the final $\frac{1}{4}$ **of the book**.

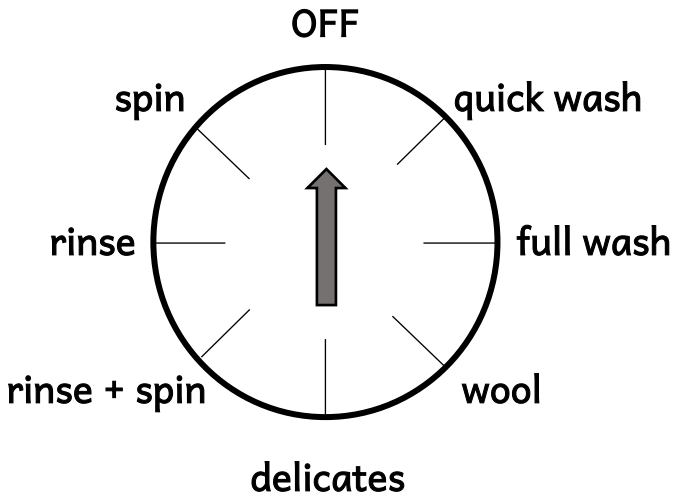
How many **pages** are there in Amy's book?

Show your working here.

pages

(6 marks)

14. This is the control knob of a washing machine.
It shows the knob in the OFF position.



a) **Fill in** this table according to the directions of the knob:

knob directions	degrees (^{0})	right angles	fraction of a turn
From **OFF** to **delicates (clockwise)**	180		$\frac{1}{2}$
From **OFF** to **rinse + spin (anticlockwise)**		$1\frac{1}{2}$	
From **OFF** to **quick wash (clockwise)**	45		$\frac{1}{8}$

b) The **full wash programme** is ready in $\frac{3}{4}$ **of an hour**.

Matthew turns the machine on at **18:25**.

At **what time** does the machine **stop**?

Show your working here.

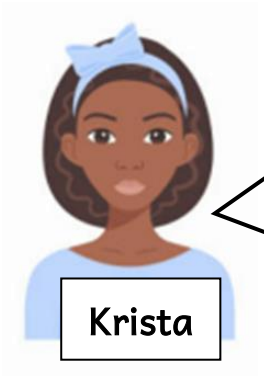
____ : ____

(6 marks)

15a) Ema says there are **151 days from 1 January 2022 to 31 May 2022**.
Ema is **right**. Show working to explain why.

Show your working here.

b) Work out the **ages** of **Krista**, **Ben**, **Rob** and **Jessica**.



Krista

I am **3 years younger than Jessica**.

I am **4 years younger than Jessica** and I will be **12 years next year**.

Ben

Rob

I am **24 months older than Krista**.

I am **Jessica**.

Krista _____ years

Rob _____ years

Ben _____ years

Jessica _____ years

(6 marks)

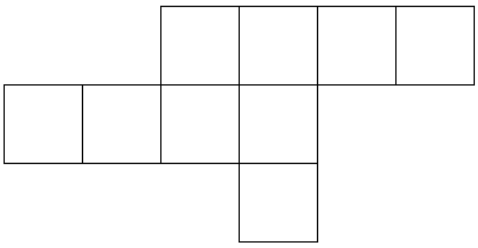
16a) Adam, Greta and John draw 3 **different squares**.

The **perimeter** of Adam's square is **36 cm.**
The **length** of Greta's square is **36 cm**.
The **area** of John's square is **36 cm^2.**
What is the **perimeter** of the **smallest** square?

Show your working here.

centimetres

b) Adam, Greta and John draw the diagram below using **1 cm squares**.



i. The perimeter of the diagram is _____ **cm**.

ii. Greta **removes one square** from the diagram.
The **perimeter** of the new diagram remains the **same**.
On the above diagram, **shade** the square that Greta **removes**.

(6 marks)

END OF PAPER