

# Year 5 Autumn 1 • Problem solving and reasoning

Name: \_\_\_\_\_

Date: \_\_\_\_\_



Write your full name  
and the date.

## For teacher use

Your mark	_____ out of 30
What went well	
How to improve	

1 Write in what the **two missing** numbers could be.

$10278 < \boxed{\phantom{00000}} < 10287 < \boxed{\phantom{00000}} < 10782$

2 Write the **five numbers in order**, from **largest** to **smallest**.

965 908	96590	956 908	965 809	96 950
<input style="width: 50px; height: 20px;" type="text"/>	<input style="width: 50px; height: 20px;" type="text"/>	<input style="width: 50px; height: 20px;" type="text"/>	<input style="width: 50px; height: 20px;" type="text"/>	<input style="width: 50px; height: 20px;" type="text"/>
<b>largest</b>				<b>smallest</b>

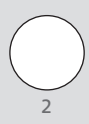
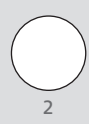
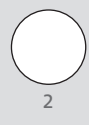
3 Which of these are **correct**?

Put a **tick (✓)** or **cross (✗)** in the box next to each calculation.

- a)  $1672 + 120 = 1792$
- b)  $2437 + 520 = 2939$
- c)  $3957 - 2030 = 1627$
- d)  $6781 - 340 = 6441$

4 Peter has saved **£190**. His grandmother gives him **£50** for his birthday, and he then spends **£80** on some new computer games. How **much** does he have **left**?

<b>Show your method</b>	



- 5 George says that he **added 48** to **375** in his head. Explain here how he might have done this and write the answer.

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- 6 a) How many **more** than **176** is **220**?

- b) What number is **160 less** than **583**?

- 7 **Match** the **value** of the **digit 7** in each of these numbers to the correct **place value**. The first one is done for you.

- |                  |   |            |
|------------------|---|------------|
| a) <b>27·06</b>  |   | tens       |
| b) <b>34·073</b> | — | ones       |
| c) <b>0·789</b>  |   | hundreds   |
| d) <b>70·9</b>   |   | hundredths |
| e) <b>726·3</b>  |   | tenths     |

- 8 a) What is **added** to **45·673** to make **45·693**?

- b) What is **subtracted** from **7·86** to make **7·76**?



9 Show how to use **doubling** and **halving** to work out the answers.

a)

$$\begin{array}{ccc}
 25 & \times & 12 \\
 \downarrow & & \downarrow \\
 \text{double} & & \text{half} \\
 \downarrow & & \downarrow \\
 \boxed{\phantom{00}} & \times & \boxed{\phantom{00}} \\
 25 \times 12 = & & \boxed{\phantom{000}}
 \end{array}$$

b)

$$\begin{array}{ccc}
 32 & \times & 50 \\
 \downarrow & & \downarrow \\
 \text{half} & & \text{double} \\
 \downarrow & & \downarrow \\
 \boxed{\phantom{00}} & \times & \boxed{\phantom{00}} \\
 32 \times 50 = & & \boxed{\phantom{000}}
 \end{array}$$

10 Here is a bus timetable.

Destination	Departs (24 hour clock)	Departs (am/pm time)	Arrives (am/pm time)
Cardiff	07:15	<input type="text"/>	10:20 am
Manchester	<input type="text"/>	6:50 pm	12:10 am
Edinburgh	13:30	<input type="text"/>	10:10 pm

a) Complete the missing **departure** times in the table.

b) How **long** does the journey take to **Cardiff**?

c) Robbie takes the bus to **Manchester** and Lucy the bus to **Edinburgh**.

How many **hours before** Robbie arrives in Manchester does Lucy arrive in Edinburgh?  hrs

11 Write in the **missing** numbers.

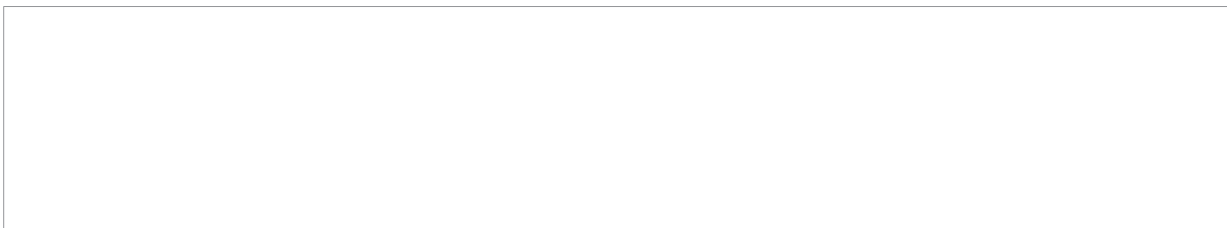
a)  $\frac{1}{2}$  km =  m

b)  $\frac{1}{10}$  m =  cm

- 12** a) Measure this line to the nearest **mm**.

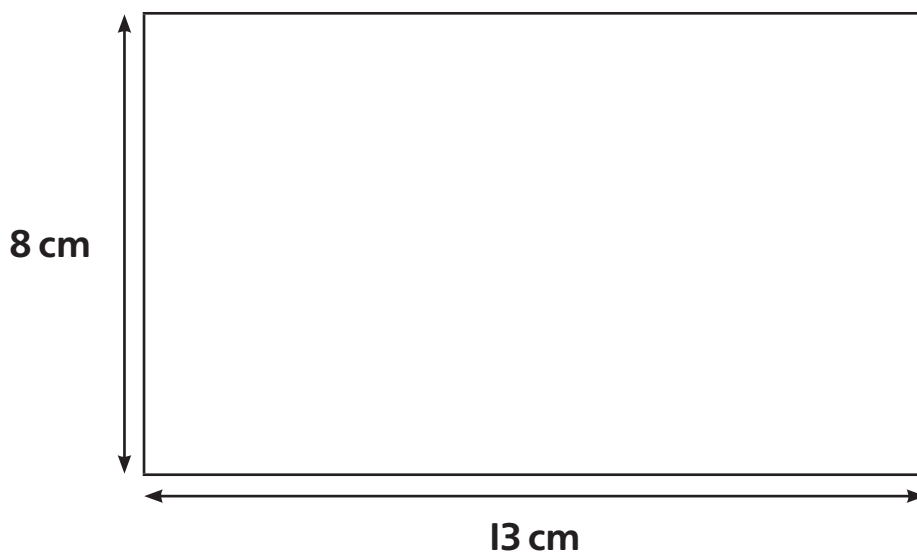


- b) In the space below, draw a line that is exactly **105 mm** long.

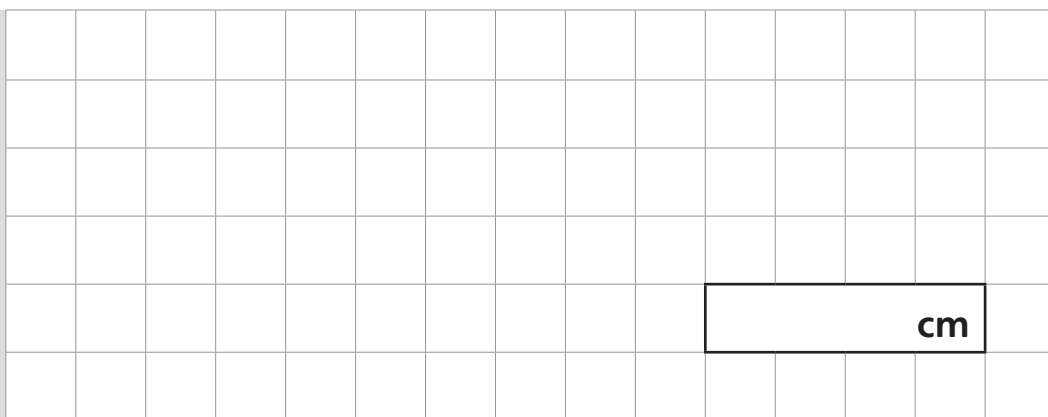


A large empty rectangular box intended for drawing a line of a specific length.

- 13** What is the **perimeter** of this rectangle?



Show  
your  
method



A grid for showing the method to find the perimeter of the rectangle. A small rectangle is drawn on the grid, spanning 4 units wide and 1 unit high, with the text "cm" written inside it.



**14** Jane has a **£20** note. She spends **£12.60** on a ticket to the cinema.

a) How much **change** does she get?

b) She then buys a drink for **£1.45**.  
How much does she **have left**?

You can use the space below for workings.

**15**  $712 - 555 = ?$

Circle the correct answer.

**167**

**157**

**57**

Explain how you can work this out in your head.

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