



DEEPENING UNDERSTANDING ANSWER SHEET

YEAR 5 PIM – MEASURE PERIMETER

Fluency 1

The length = **8cm**

The width = **1cm**

$$\mathbf{8cm + 1cm = 9cm}$$

$$\text{Double } \mathbf{9cm = 18cm}$$

The perimeter of this rectangle = **18cm**.

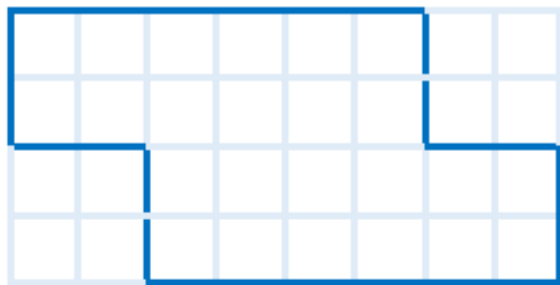
Fluency 2

$$1\text{cm} + 3\text{cm} + 2\text{cm} + 5\text{cm} + 1\text{cm} + 1\text{cm} + 2\text{cm} + 3\text{cm} = 18\text{cm}$$

Fluency 3

$$6.5\text{cm} + 5.5\text{cm} + 2.5\text{cm} + 3.5\text{cm} + 4\text{cm} + 2\text{cm} = 24\text{cm}$$

Fluency 4



Reasoning 1

Modelled DAB Reasoning Responses

D – I do not agree.

A – The properties of a rectangle tell us that opposite sides are equal.

B – Instead of measuring every side, we can just measure the length and



width, add this together and then multiply it by 2.

Reasoning 2

Modelled DAB Reasoning Response

D – This is sometimes true.

A – It depends on the length and width of the rectangle and the length of one side of a square.

B – Demonstrate with examples e.g. a 4cm x 4cm square would give a perimeter of 16cm and a 6cm x 3cm rectangle would give a perimeter of 18cm. A 6cm x 6cm square would give a perimeter of 24cm whereas a 3cm x 2cm rectangle would give a total perimeter of 10cm. A 4cm x 4cm square would have the same perimeter of a 6cm x 2cm rectangle.

Reasoning 3

Modelled DAB Reasoning Response

D – Ranjit is correct that there is only one square that you can draw but there are more possibilities for rectangles and irregular shapes.

A – The properties of a square dictate that all sides must be equal however for rectangles only opposite sides must be equal and in irregular shapes no sides need to be the same length or width.

B – The square should be 6cm x 6cm, the rectangle may have sides of 2cm x 18cm, 3cm x 12cm, or 4cm x 9cm. Irregular shapes will vary.

Reasoning 4

Modelled DAB Reasoning Response

D – This is false.

A – Just because a rectilinear shape is made up of two identical rectangles, doesn't mean the perimeter will be the total of both of them.

B – The perimeter is the total distance around the outside of a shape, therefore, if a part of the shape is overlapping, we cannot count it as part of the perimeter.



Download our 'DAB' posters to support reasoning in your classroom:

<https://www.deepeningunderstanding.co.uk/product/dab-reasoning-posters/>

Problem Solving 1

Perimeter of the canvas is 3.6m. Asha has 5.15m of ribbon. $5.15\text{m} - 3.6\text{m} = 1.55\text{m}$. She will have 1.55m of ribbon left over.

