

What is perimeter?

Notes and guidance

In this small step, children are introduced to perimeter for the first time.

Children learn that perimeter is the distance around the outside of a closed 2-D shape. Children explore what perimeter is, and what it is not, by deciding whether they can find the perimeter of a group of open and closed 2-D shapes.

Provide children with practical opportunities to understand perimeter, such as walking around the perimeter of the playground or using their finger to trace the perimeter of 2-D shapes.

At the end of this step, children start to find the perimeter of shapes on squared grids by counting along the edges. Encourage children to mark as they count to ensure they do not miscount.

Things to look out for

- Children may think that it is possible to find the perimeter of open shapes.
- When children are finding the perimeter of a shape on a squared grid, they may miscount by counting all of the squares around the shape rather than along the edge of the shape.
- Children may trace or count some sides more than once.

Key questions

- What does “perimeter” mean?
- When might someone need to find the perimeter in real life?
- Why are you unable to find the perimeter of this shape?
- How would you use your finger to trace the perimeter of this piece of paper?
- Which of the shapes has the greater perimeter?
How do you know?
- How does the squared grid help you to find the perimeter?

Possible sentence stems

- The perimeter of a shape is ...
- This shape does/does not have a perimeter because ...
- I can find the perimeter of this shape by ...

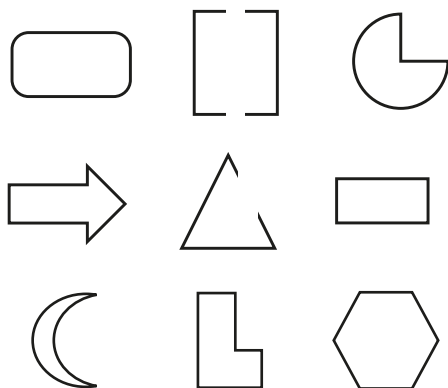
National Curriculum links

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- Measure the perimeter of simple 2-D shapes

What is perimeter?

Key learning

- Which shapes have a perimeter?

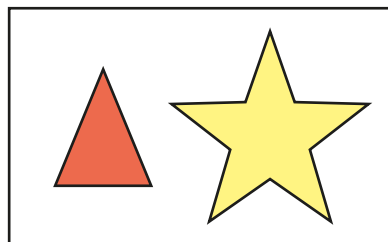
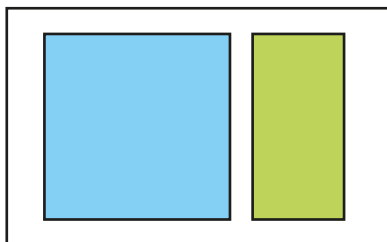


Why do some of the shapes not have a perimeter?

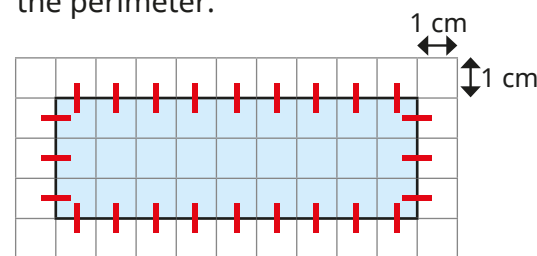
Compare answers with a partner.

- Which shape has the greater perimeter in each pair?

How do you know?

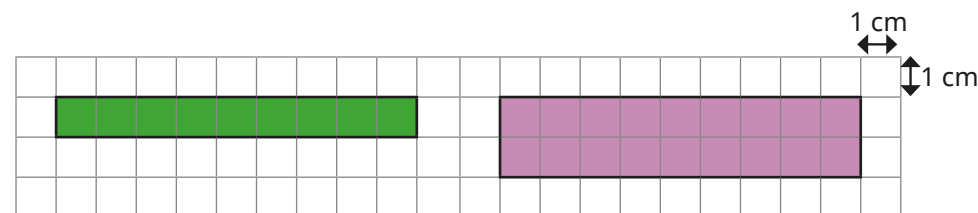


- Scott counts around the edge of the rectangle to find the perimeter.



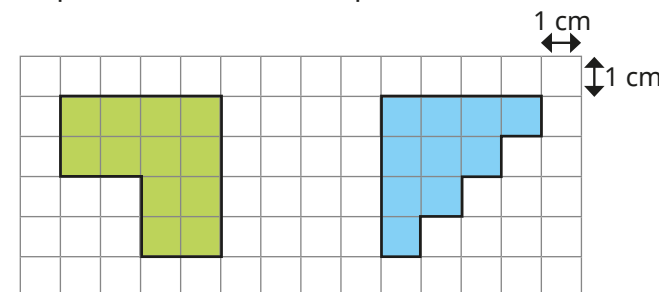
$9 + 3 + 9 + 3 = 24$
The perimeter is 24 cm.

Use Scott's method to find the perimeter of each rectangle.



What do you notice?

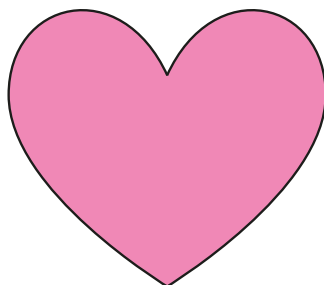
- Work out the perimeters of the shapes.



What is perimeter?

Reasoning and problem solving

Whitney wants to find the perimeter of this shape.



I cannot find the perimeter of the shape, because it does not have straight sides.

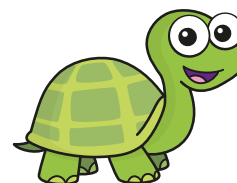
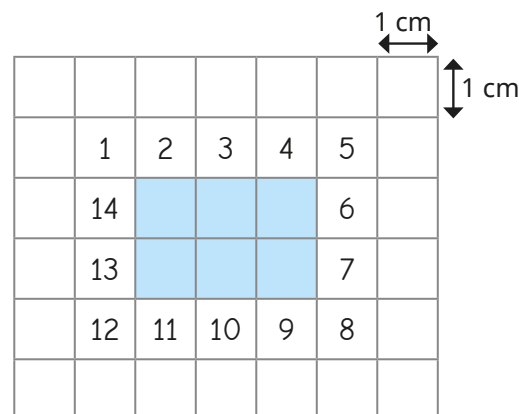


Do you agree with Whitney?

Explain your thinking.

No

Tiny is finding the perimeter of the shape by counting squares.



The perimeter is 14 cm

What mistake has Tiny made?

Find the correct perimeter.

Tiny has counted the squares rather than the edges of the shape.

10 cm