

Frequently Asked Questions

Relating Units of Measurement

$$1 \text{ cm} = 10 \text{ mm}$$

$$1 \text{ m} = 100 \text{ cm}$$

$$1 \text{ m} = 1000 \text{ mm}$$

Q: How can you decide whether to use millimetres, metres, or centimetres for measuring?

A: You can use millimetres to measure very small distances, metres to measure longer distances, and centimetres to measure in-between distances.

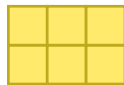
1 mm is about the thickness of a dime.

1 cm is about the width of a fingernail.

1 m is about the distance from a doorknob to the floor.

Q: If two rectangles have the same perimeter, do they have the same area?

A: Rectangles that have the same perimeter can have different areas. If two rectangles have the same perimeter, the rectangle that looks more like a square has the greater area.



Perimeter = 10 cm

Area = 6 cm^2

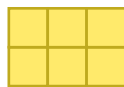


Perimeter = 10 cm

Area = 4 cm^2

Q: If two rectangles have the same area, do they have the same perimeter?

A: Rectangles that have the same area can have different perimeters. If two rectangles have the same area, the rectangle that looks more like a square has the lesser perimeter.



Area = 6 cm^2

Perimeter = 10 cm





Area = 6 cm^2

Perimeter = 14 cm

Practice

Lesson 1

1. Measure and record each length in millimetres.
 - a) 
 - b) 
2. Draw a line with each length.
 - a) 31 mm
 - b) 67 mm
3. An object is 4 m long.
 - a) How many centimetres long is it?
 - b) How many millimetres long is it?

Lesson 2

4. Name an object that could have each length.
 - a) 1 mm
 - b) 5 mm
 - c) 60 cm
 - d) 30 m
5. What objects could you measure with each unit? Give two possible answers for each.
 - a) millimetres
 - b) metres

Lesson 3

6. Sketch two different rectangles with a perimeter of 48 cm. Use 1 cm grid paper.

Lesson 4

7.
 - a) Sketch two different rectangles with an area of 18 cm^2 . Use 1 cm grid paper.
 - b) Which rectangle has the lesser perimeter?
8. Rectangle A and Rectangle B have the same perimeter, but the area of Rectangle A is much greater. Which rectangle looks more like a square? How do you know?
9. Why might someone who is planning to build a deck want to think about the relationship between the area and the perimeter of a rectangle?

