

# Perimeter and area

## Lesson sequence

- Perimeter of rectangles
- Perimeter of rectilinear shapes
- Perimeter of polygons
- Area of rectangles
- Area of compound shapes
- Estimate area

## Vocabulary

- Multiply
- Perimeter
  - Area
- Rectilinear
- Rectangle
- Polygon
- Compound shape
  - Width
  - Length

## Sticky learning

### New Knowledge

- To know the formula for area is  $l \times w$
- To know that imperial measurements include feet, inches and pints
- To know that metric measurements include meters, centimeters and kilometers
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### New Skills

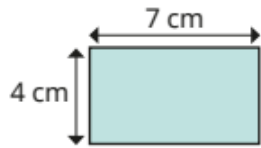
- To calculate and compare the area of squares and rectangles including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes (also included in measuring)
- To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- To calculate and compare the area of squares and rectangles including using standard units, square centimetres ( $\text{cm}^2$ ) and square metres ( $\text{m}^2$ ) and estimate the area of irregular shapes
- To calculate the perimeter of rectangles and related composite shapes, including using the relations of perimeter or area to find unknown lengths

## Concept Links/Prior Knowledge

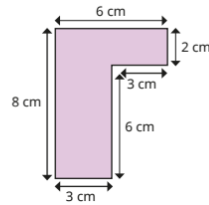
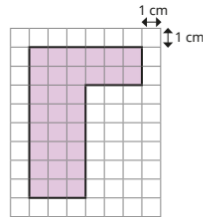
- To know that area is the measurement of space inside a 2-Dimensional shape
- To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- To find the area of rectilinear shapes by counting squares

## Pictorial representations

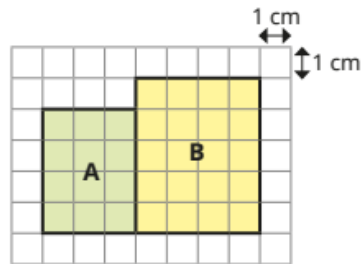
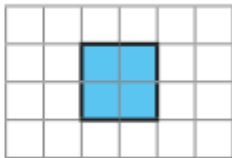
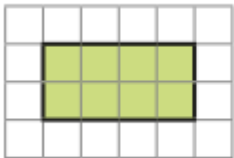
### Perimeter



$$7\text{ cm} + 4\text{ cm} + 7\text{ cm} + 4\text{ cm} = 22\text{ cm}$$

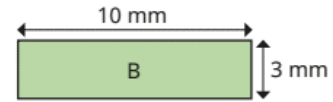


### Area

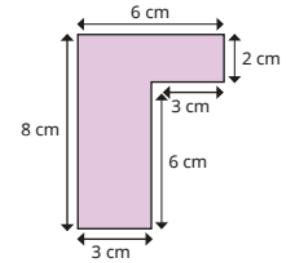


## Abstract Representations

### Perimeter

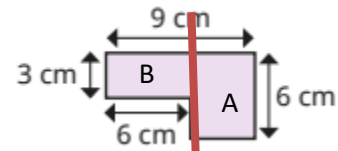


$$10 \times 3 = 30\text{mm}^2$$



$$6\text{cm} + 2\text{cm} + 3\text{cm} + 6\text{cm} + 3\text{cm} + 8\text{cm} = 28\text{cm}$$

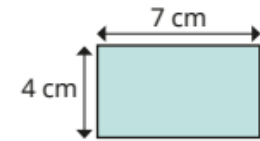
### Area



$$A = 6\text{cm} \times 3\text{cm} = 18\text{cm}^2$$

$$B = 6\text{cm} \times 3\text{cm} = 18\text{cm}^2$$

$$18\text{cm}^2 + 18\text{cm}^2 = 32\text{cm}^2$$



$$7\text{cm} \times 4\text{cm} = 32\text{cm}^2$$