## Perimeter and Area

Perimeter: The total distance around the outside of a shape. (The length of its outline) Measured in units of length ( $\mathrm{mm}, \mathrm{cm}, \mathrm{m}, \mathrm{km}$ )

Area: $\quad$ The space a shape takes up.
Measured in units of area ( $\mathrm{mm}^{2}, \mathrm{~cm}^{2}, \mathrm{~m}^{2}$ )

The area of a rectangle is length $x$ breadth


> Notice the area of a square is a special case because all sides are equal so length = breadth

The area of a triangle is base $\times$ height Height


Base

Remember: There must be a right angle between the base and the height.

The area of a composite shape can be found by breaking the shape into its more simple components and finding the area of each.

1. Calculate the area and the perimeter of each rectangle below:

8 cm

(b)

(e)

(c)

5m

(f)
3.8 cm
3.2 cm

2. Calculate the shaded area in each diagram below :


22 mm
0.8 m

(c)
3. Calculate the area of each composite shape below:
(a)
(b)
24 cm

(c)



## Answers

1. a) $A=40 \mathrm{~cm}^{2}, P=26 \mathrm{~cm}$
b) $A=63 \mathrm{~cm}^{2}, P=32 \mathrm{~cm}$
c) $A=10 \mathrm{~m}^{2}, P=14 \mathrm{~m}$
d) $A=84 \mathrm{~mm}^{2}, \quad P=40 \mathrm{~mm}$
e) $A=9 \mathrm{~m}^{2}, \quad P=13.6 \mathrm{~m}$
f) $A=12.16 \mathrm{~cm}^{2}, \quad P=14 \mathrm{~cm}$
2. a) $\left.A=26 \mathrm{~cm}^{2} b\right) A=252 \mathrm{~mm}^{2}$
c) $A=1.12 \mathrm{~m}^{2}$
3. a) $\left.A=72 \mathrm{~cm}^{2} \mathrm{~b}\right) \mathrm{A}=222 \mathrm{~cm}^{2}$
c) $A=9.12 \mathrm{~m}^{2}$
