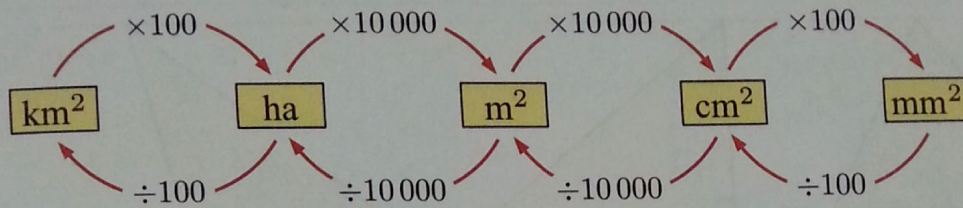


AREA UNITS CONVERSIONS



Example 4

Self Tutor

Convert: **a** 6 m^2 to cm^2 **b** $18\,500 \text{ m}^2$ to ha

$$\begin{aligned} \mathbf{a} \quad 6 \text{ m}^2 &= (6 \times 10\,000) \text{ cm}^2 \\ &= 60\,000 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \mathbf{b} \quad 18\,500 \text{ m}^2 &= (18\,500 \div 10\,000) \text{ ha} \\ &= \overbrace{18\,500.}^{\text{}} \div 10\,000 \text{ ha} \\ &= 1.85 \text{ ha} \end{aligned}$$

EXERCISE 11C.1

1 Suggest an appropriate area unit for measuring the following:

- a** the area of a postage stamp
- b** the area of your desktop
- c** the area of a vineyard
- d** the area of your bedroom floor
- e** the area of Ireland
- f** the area of a toe-nail

2 Convert:

a 23 mm^2 to cm^2

d 7.6 m^2 to mm^2

g 13.54 cm^2 to mm^2

j 3 km^2 into m^2

m 660 ha into km^2

p 5.2 mm^2 into cm^2

b 3.6 ha to m^2

e 8530 m^2 to ha

h 432 m^2 to cm^2

k 0.7 km^2 into ha

n 0.05 m^2 into cm^2

q 0.72 km^2 into mm^2

c 726 cm^2 to m^2

f 0.354 ha to cm^2

i 0.00482 m^2 to mm^2

l 660 ha into m^2

o 25 cm^2 into m^2

3 Calculate the area of the following rectangles:

a 50 cm by 0.2 m in cm^2

b 0.6 m by 0.04 m in cm^2

c 30 mm by 4 mm in cm^2

d 0.2 km by 0.4 km in m^2

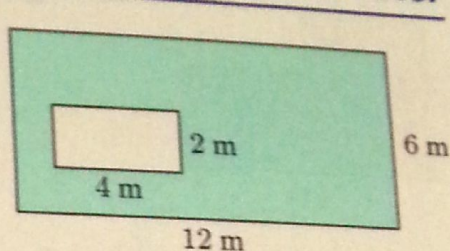
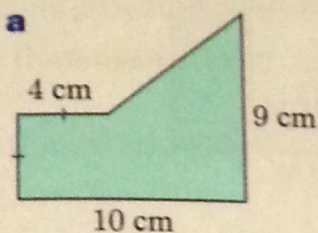
4 A 2 ha block of land is to be divided into 32 blocks of equal size. Find the area for each block in m^2 .

5 The area of a square coaster is 64 cm^2 . How many coasters can be made from a sheet of wood with area 4 m^2 ?

Make sure you change both length units into the units required in the answer.

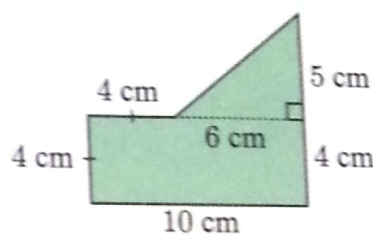


Find the green shaded area:



a We divide the figure into a rectangle and a triangle as shown alongside:

$$\begin{aligned} \text{Area} &= \text{area of rectangle} + \text{area of triangle} \\ &= 10 \times 4 + \frac{1}{2} \times 6 \times 5 \\ &= 40 + 15 \\ &= 55 \text{ cm}^2 \end{aligned}$$

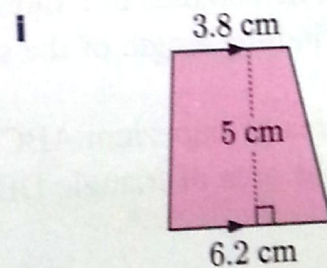
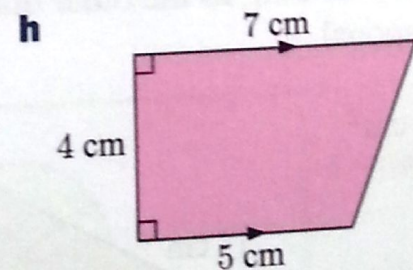
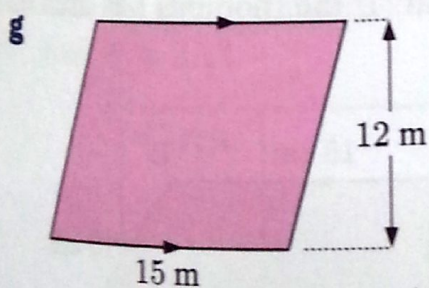
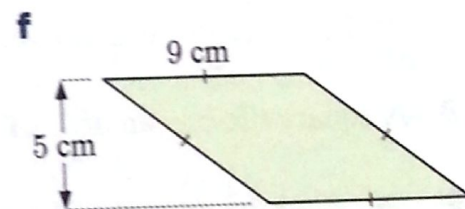
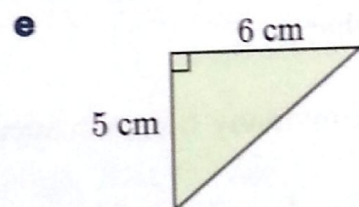
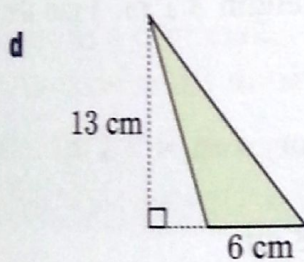
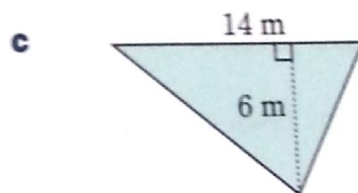
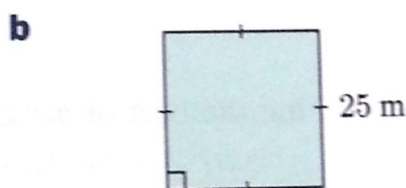
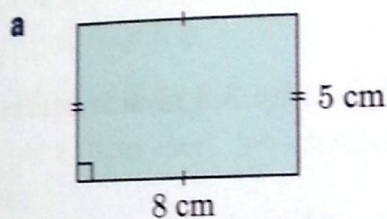


b Area = area large rectangle – area small rectangle

$$\begin{aligned} &= 12 \times 6 - 4 \times 2 \\ &= 64 \text{ m}^2 \end{aligned}$$

EXERCISE 11C.2

1 Find the area of the shaded region:



2 Calculate the height h of the following figures:

