The last three questions give you a surface area and ask for a length. Work out which step to undo first.

1 Find the surface area of each solid.

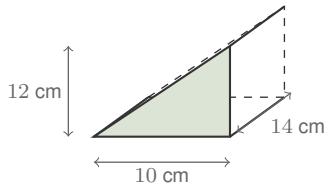
(a) A cube of side 9 cm (1)

(b) A cuboid 11 cm by 6 cm by 4 cm (2)

(c) A cuboid 20 cm by 20 cm by 5 cm (2)

(5 marks)

2 Find the total surface area of this prism.



(a) The two triangles (2)

(b) The sloping edge, given that the triangle is right-angled with shorter sides 10 cm and 12 cm (2)

(c) The three rectangles (3)

(d) Total (1)

(8 marks)

3 A wooden crate is a closed cuboid 1.2 m by 0.8 m by 0.5 m.

(a) Find its surface area in m^2 (3)

(b) One tin of paint covers 5 m^2. **How many tins are needed to paint six crates?** (3)

(6 marks)

4 A cube has surface area 96 cm^2. Find the length of its side.

(a) Find the area of one face (1)

(b) Find the side (1)

(2 marks)

5 A cuboid is 10 cm long and 4 cm deep. Its surface area is 220 cm^2. Find its height.

(a) Write the surface area with h in it (2)

(b) Solve for h (3)

(5 marks)

6 A triangular prism has a right-angled cross-section with shorter sides 6 cm and 8 cm. Its total surface area is 192 cm^2. Find the length of the prism.

(a) The two triangles (1)

(b) The perimeter of the triangle (1)

(c) Write the surface area with L in it and solve (3)

(5 marks)