

### MATC9 Ch3.4 Key Concepts 2 Surface Area of a Cylinder Worked Example

**Example:** Find the surface area of a cylinder with a radius of 6 cm and a height of 10 cm.

**Solution:** Use the formula  $S = 2\pi r^2 + 2\pi rh$ .

$$\begin{aligned} S &= 2 \times \pi \times 6^2 + 2 \times \pi \times 6 \times 10 \\ &= 603.2 \text{ cm}^2 \end{aligned}$$

The surface area is 603.2 cm<sup>2</sup>.

**Practice:**

1. Find the surface area of a cylinder with a radius of 3 cm and a height of 12 cm.

2. Find the surface area of a cylinder with a radius of 8 m and a height of 14 m.

Answers: 1. 282.7 cm<sup>2</sup> 2. 1105.4 m<sup>2</sup>