SCAN ME

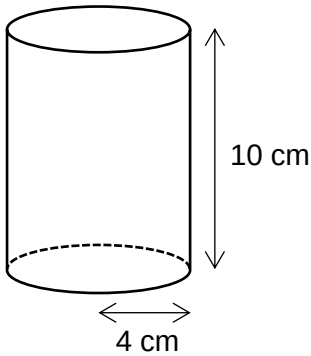
# Volume and Surface Area of Cylinders

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

**1** Here is a cylinder with a radius of 4 cm and a height of 10 cm.




**1 (a)** Work out the volume of the cylinder.
Give your answer in terms of $\pi$. **[2 marks]**

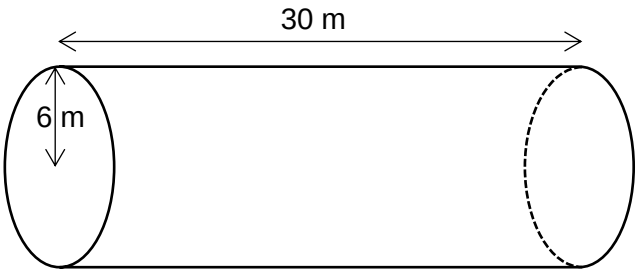
Answer _____ $cm^3$

**1 (b)** Work out the surface area of the cylinder.
Give your answer in terms of $\pi$. **[3 marks]**

Answer _____ $cm^2$

5

**2** Here is a cylinder.




**2 (a)** Work out the volume of the cylinder.
Give your answer to 1 decimal place. **[2 marks]**

Answer _____ $m^3$

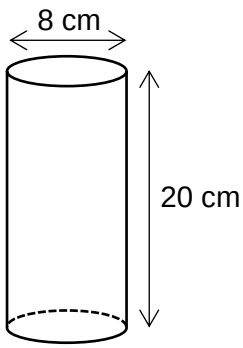
**2 (b)** Work out the surface area of the cylinder.
Give your answer to 1 decimal place. **[3 marks]**

Answer _____ $m^2$



Solutions

**3** Here is a cylinder.




**3 (a)** Work out the volume of the cylinder.
Give your answer to 1 decimal place. **[2 marks]**

Answer _____ $cm^3$

**3 (b)** Work out the surface area of the cylinder.
Give your answer to 1 decimal place. **[3 marks]**

Answer _____ $cm^2$

10

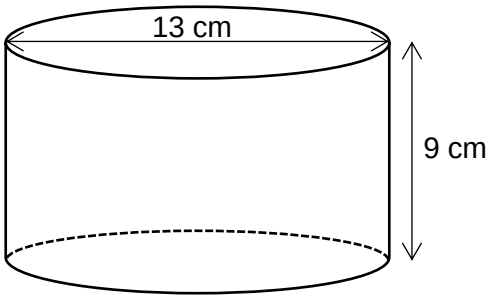
**Turn over ►**





Solutions

**4** Here is a cylinder.




**4 (a)** Work out the volume of the cylinder.
Give your answer to 4 significant figures. **[2 marks]**

Answer _____ $cm^3$

**4 (b)** Work out the surface area of the cylinder.
Give your answer to 3 significant figures. **[3 marks]**

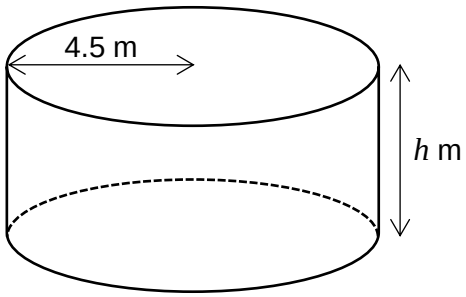
Answer _____ $cm^2$





Solutions

**5** Here is a cylinder with a volume of 299 $m^3$




**5 (a)** Work out the value of $h$, the height of the cylinder.
Give your answer to 1 decimal place.

**[2 marks]**

Answer _____ m

**5 (b)** Work out the surface area of the cylinder.
Give your answer to 3 significant figures.

**[3 marks]**

Answer _____ $m^2$

10

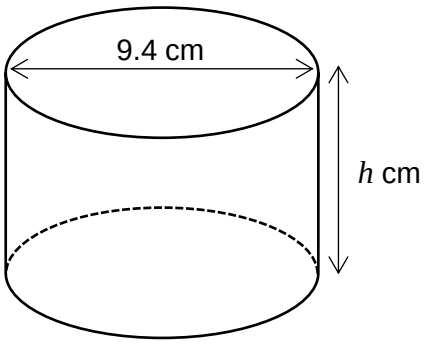
**Turn over ►**





Solutions

**6** Here is a cylinder with a volume of 576 $cm^3$




**6 (a)** Work out the value of $h$, the height of the cylinder.
Give your answer to 1 decimal place. **[2 marks]**

Answer _____ cm

**6 (b)** Work out the surface area of the cylinder.
Give your answer to 4 significant figures. **[3 marks]**

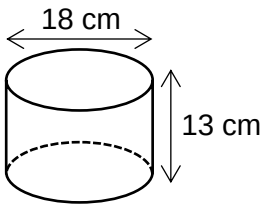
Answer _____ $cm^2$



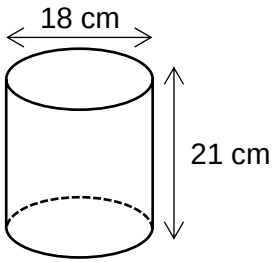
Solutions

**7** Here are two cylinders.

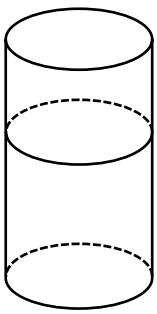
**Cylinder A**




**Cylinder B**




**Cylinder A** is placed on top of **cylinder B** to form a new cylinder.

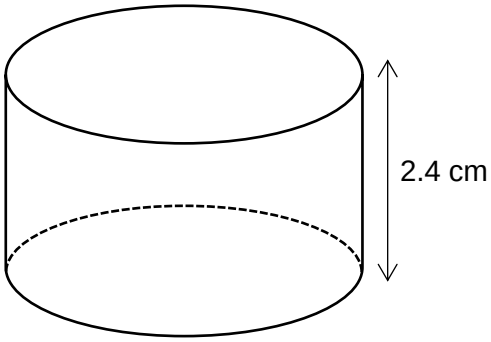


Work out the surface area of the new cylinder.
Give your answer to 4 significant figures. **[3 marks]**

Answer _____ $cm^2$

8

**8** Here is a cylinder with a height of 2.4 cm




The ratio of the radius of the cylinder to the height of the cylinder is 2 : 3

**8 (a)** Work out the volume of the cylinder.
Give your answer to 1 decimal place. **[3 marks]**

Answer _____ $cm^3$

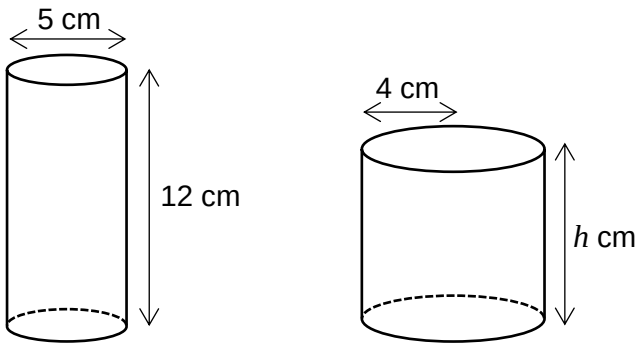
**8 (b)** Work out the surface area of the cylinder.
Give your answer to 3 significant figures. **[3 marks]**

Answer _____ $cm^2$



Solutions

**9** Here are two cylinders with the same volume.




Work out the value of $h$, the height of the second cylinder.
Give your answer to 2 decimal places.

**[4 marks]**

Answer _____ cm

10

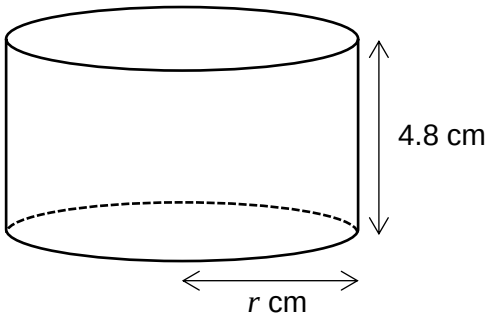
**Turn over ►**





Solutions

**10** Here is a cylinder with a volume of 266 $cm^3$




**10 (a)** Work out the value of $r$, the radius of the cylinder.
Give your answer to 1 decimal place.

**[3 marks]**

Answer _____ cm

**10 (b)** Work out the surface area of the cylinder.
Give your answer to 4 significant figures.

**[3 marks]**

Answer _____ $cm^2$

6





Solutions