1 The diagram shows a cone.

Volume of a cone $= \frac{1}{3}\pi r^2 h$

11 cm

4 cm

The radius of the cone is 4 cm and the perpendicular height of the cone is 11 cm.

Work out the volume of the cone.
Give your answer to 1 decimal place.

.... cm^3

(Total for Question 1 is 2 marks)

1
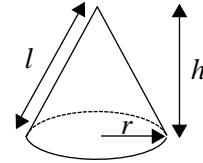
2 The diagram shows a cone.
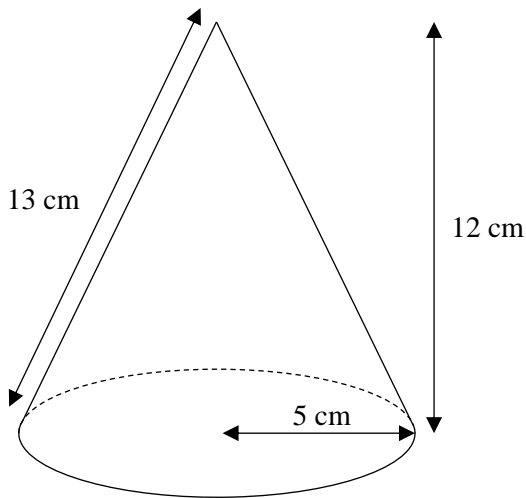
Volume of a cone $= \frac{1}{3}\pi r^2 h$

Curved surface area of cone $= \pi r l$

13 cm

12 cm

5 cm

(a) Work out the volume of the cone.
   Give your answer to 1 decimal place.

....cm^3

(2)

(b) Work out the total surface area of the cone.
   Give your answer to 1 decimal place.

....cm^2

(3)

(Total for Question 2 is 5 marks)

2

3 The diagram shows a cone.

Volume of a cone $= \frac{1}{3}\pi r^2 h$

Curved surface area of cone $= \pi r l$

10 cm

8 cm

6 cm

(a) Work out the volume of the cone.
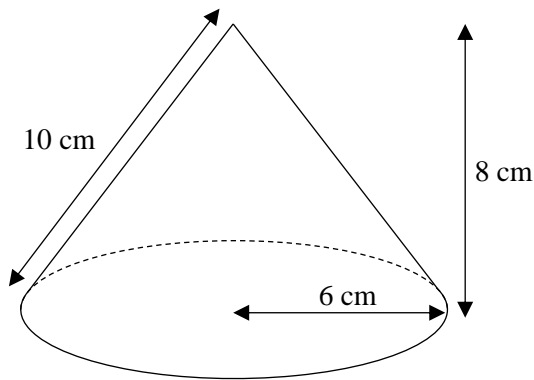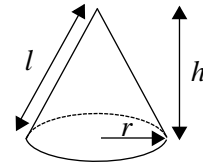Give your answer to 1 decimal place.

....cm^3

(2)

(b) Work out the total surface area of the cone.
Give your answer to 1 decimal place.

....cm^2

(3)

(Total for Question 3 is 5 marks)

3

Solutions

4 The diagram shows a cone.

Volume of a cone $= \frac{1}{3}\pi r^2 h$

Curved surface area of cone $= \pi r l$

17 cm

15 cm

8 cm

(a) Work out the volume of the cone.
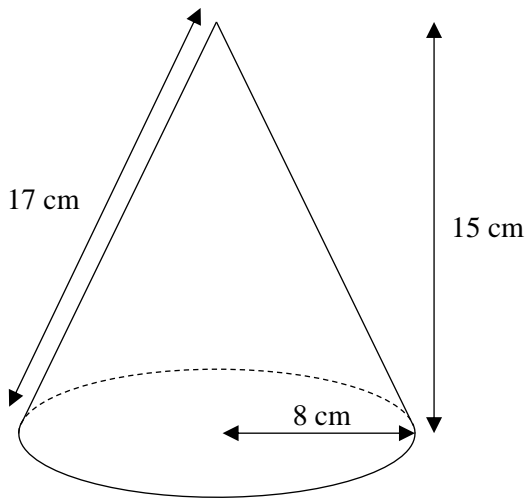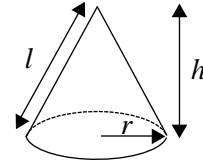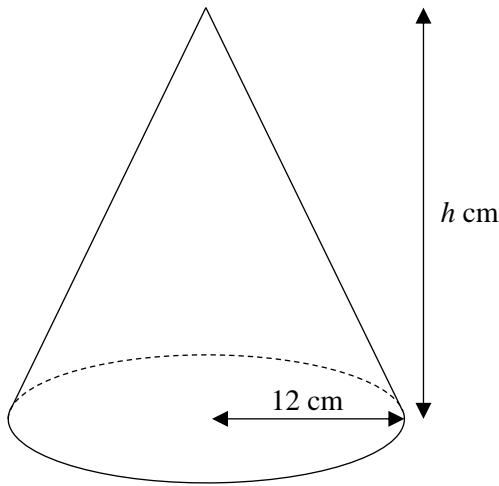   Give your answer to 1 decimal place.

....cm^3

(2)

(b) Work out the total surface area of the cone.
    Give your answer to 1 decimal place.

....cm^2

(3)

(Total for Question 4 is 5 marks)

5 The diagram shows a cone.

The volume of the cone is 3000 cm^3

Work out the value of h, the height of the cone.
Give your answer to 1 decimal place.

$h =$ .... cm

(Total for Question 5 is 3 marks)

6 The diagram shows a cone.
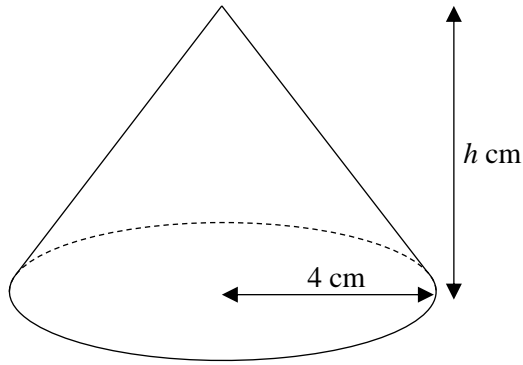
The volume of the cone is 90 cm^3

Work out the value of h, the height of the cone.
Give your answer to 1 decimal place.

$h = $ .... cm

(Total for Question 6 is 3 marks)

Solutions

7 The diagram shows a cone.

8.5 cm

r cm
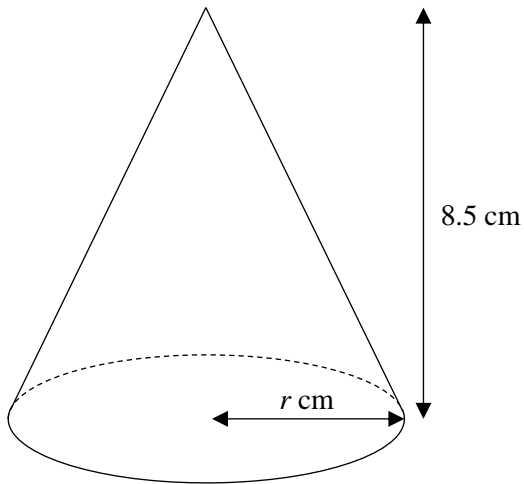
The volume of the cone is 120 cm^3

Work out the value of r, the radius of the base of the cone.
Give your answer to 1 decimal place.

$r =$ .... cm

(Total for Question 7 is 4 marks)

Solutions