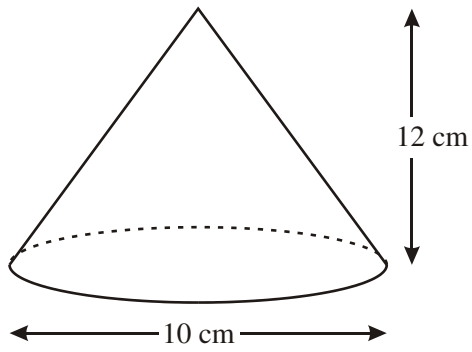**1.**

Diagram **NOT** accurately drawn

The diagram represents a cone.
The height of the cone is 12 cm.
The diameter of the base of the cone is 10 cm.

Calculate the curved surface area of the cone.
Give your answer as a multiple of π.
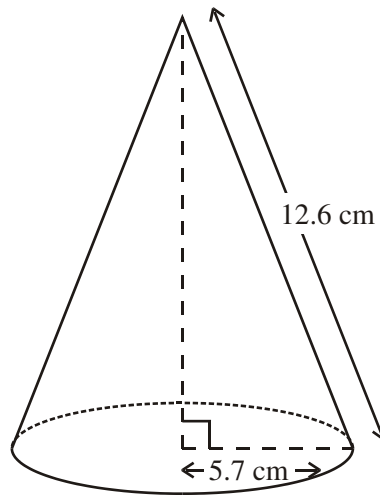
…………….. cm^2

(Total 3 marks)

2.

Diagram **NOT** accurately drawn

The radius of the base of a cone is 5.7 cm.
Its slant height is 12.6 cm.

Calculate the volume of the cone.
Give your answer correct to 3 significant figures.
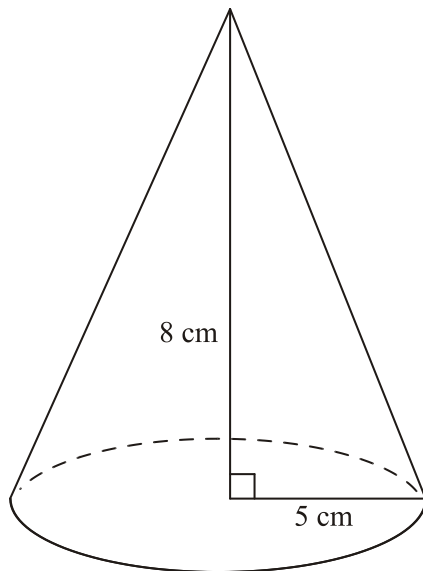
……………………….. cm³

(Total 4 marks)

3.

Diagram **NOT**
accurately drawn

A cone has a base radius of 5 cm and a vertical height of 8 cm.

Calculate the volume of the cone.

Give your answer correct to 3 significant figures.

.... cm^3

(2)

4. The diagram shows a child's toy.

Diagram **NOT**
accurately drawn

22cm

7cm

The toy is made fro
The cone and hemis
The total height of t
Work out the volum
Give your answer c

.... cm³
(Total 3 marks)

5. The diagram shows a solid hemisphere of radius 8 cm.

Diagram **NOT** accurately drawn

8 cm
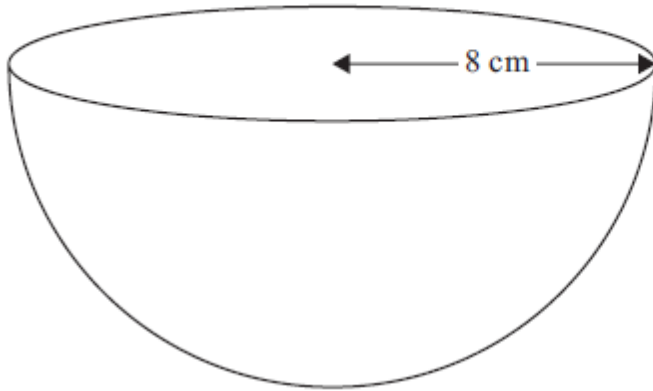
Work out the total surface area of the hemisphere.
Give your answer correct to 3 significant figures.

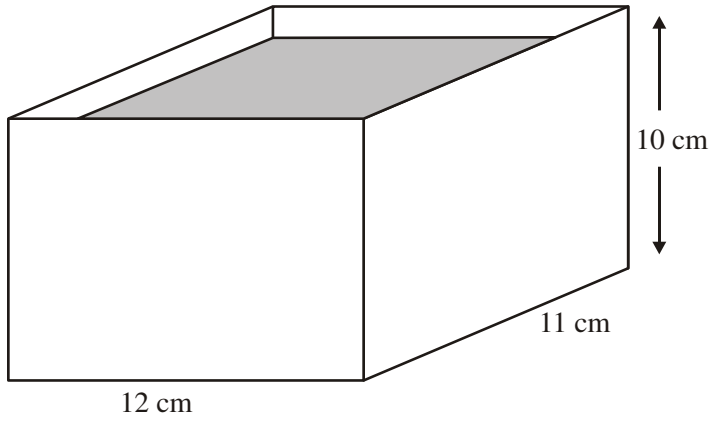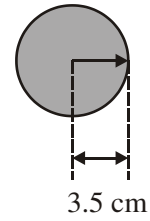.............................. cm^2

(Total 3 marks)

6.

Diagram **NOT** accurately drawn

10 cm

11 cm

12 cm

3.5 cm

A rectangular container is 12 cm long, 11 cm wide and 10 cm high.
The container is filled with water to a depth of 8 cm.

A metal sphere of radius 3.5 cm is placed in the water.
It sinks to the bottom.

Calculate the rise in the water level.
Give your answer correct to 3 significant figures.

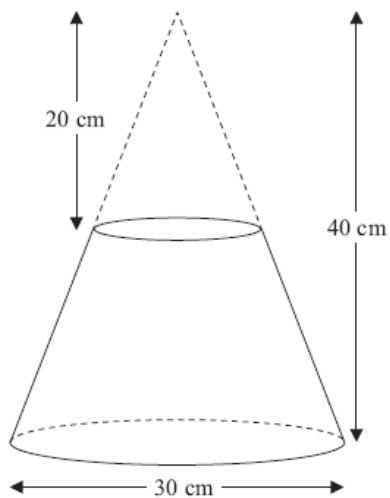.............................cm

(Total 4 marks)

7.

Diagram **NOT**
accurately drawn

A frustum is made by removing a small cone from a similar large cone.
The height of the small cone is 20 cm.
The height of the large cone is 40 cm.
The diameter of the base of the large cone is 30 cm.
Work out the volume of the frustum.
Give your answer correct to 3 significant figures.

.... cm^3

(Total 4 marks)