DO NOT WRITE IN THIS AREA

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20

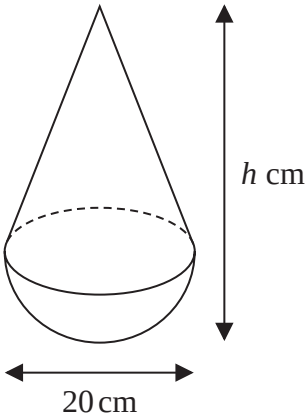

Diagram **NOT** accurately drawn

The diagram shows a solid shape made by fixing a solid right circular cone of diameter 20 cm to the circular face of a solid hemisphere of diameter 20 cm.

The centre of the base of the cone coincides with the centre of the circular face of the hemisphere.

The overall height of the shape is h cm.

Given that for this shape

volume of cone : volume of hemisphere = 3 : 4

find the value of h

$h =$ .....

(Total for Question 20 is 5 marks)