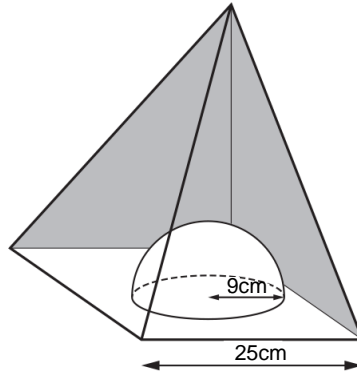
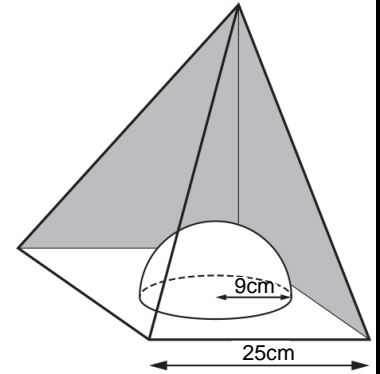


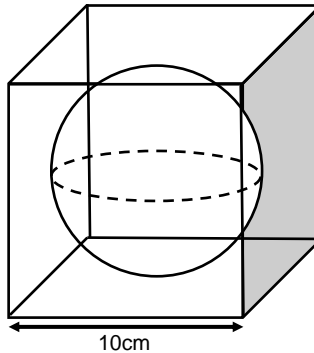
a)
An ornament is made from a solid glass square-based pyramid.
The base has side length 25cm.
A hemisphere with radius 9cm is cut out of the base of the pyramid.
This reduces the volume of glass contained in the ornament by 30%.
Calculate the perpendicular height of the pyramid.



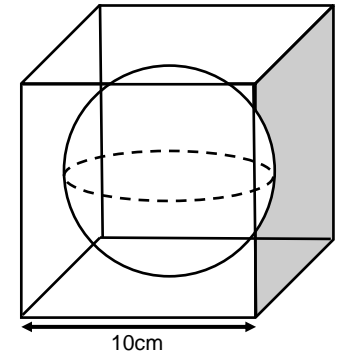
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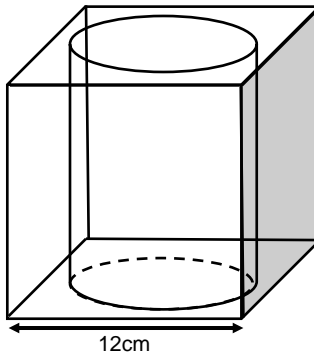
b)
An ornament is made from a solid glass cube.
The cube has side length 10cm.
A sphere is bore out of the centre of the cube.
This reduces the volume of glass contained in the ornament by 60%.
Calculate the radius of the sphere.



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An ornament is made from a solid glass cube.
The cube has side length 10cm.
A sphere is bore out of the centre of the cube.
This reduces the volume of glass contained in the ornament by 60%.
Calculate the radius of the sphere.



c)
An ornament is made from a solid glass cube.
The cube has side length 12cm.
A cylinder is cut out of the centre of the cube.
This reduces the volume of glass contained in the ornament by 75%.
Calculate the radius of cylinder.



c)
An ornament is made from a solid glass cube.
The cube has side length 12cm.
A cylinder is cut out of the centre of the cube.
This reduces the volume of glass contained in the ornament by 75%.
Calculate the radius of cylinder.

