

Name: _____

Exam Style Questions

Volume of a Sphere



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

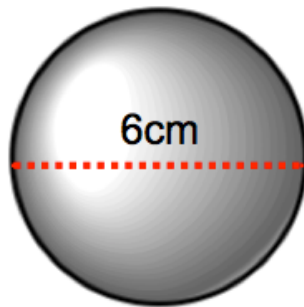
Video 361



1. A sphere has radius 2cm.
Calculate the volume of the sphere.
Give your answer to 1 decimal place.

.....cm³
(3)

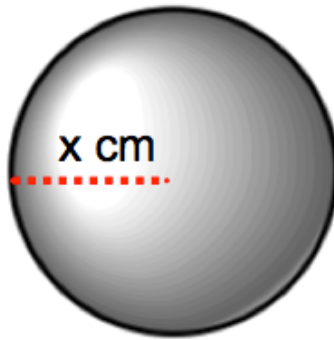
2. Shown is a sphere with diameter 6cm.



Calculate the volume of the sphere.
Give your answer in terms of π .

.....cm³
(3)

3. A sphere has volume 500cm^3 .



Calculate the radius of the sphere, x.

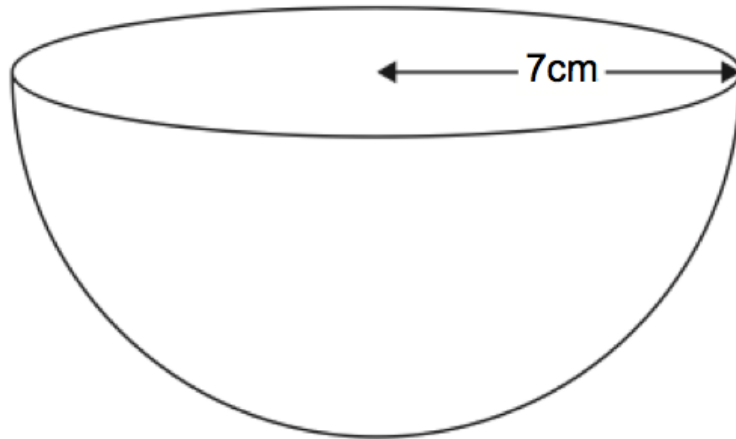
.....cm
(3)

4. The volume of a sphere is $4500\pi\text{ cm}^3$

Calculate the radius of the sphere.

.....cm
(3)

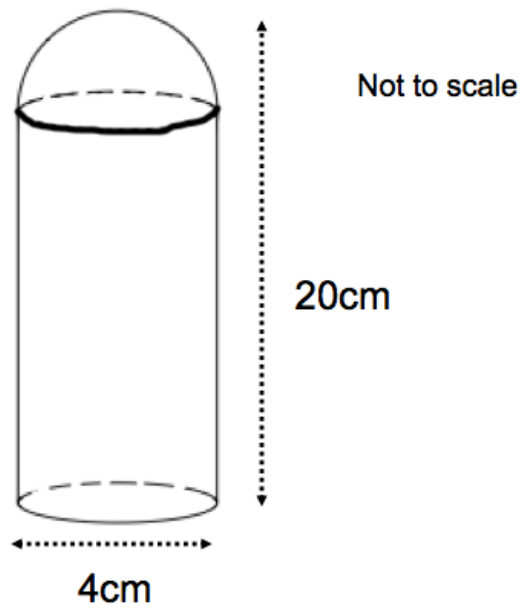
5. Shown below is a hemisphere.



Calculate the volume of the hemisphere.

.....cm³
(3)

6. A container is created from a cylinder and a hemisphere.

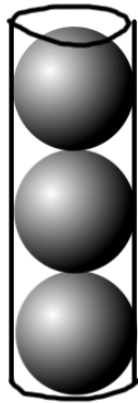


The height of the container is 20cm.
The diameter of the cylinder is 4cm.

Calculate the volume of the container.

.....cm³
(3)

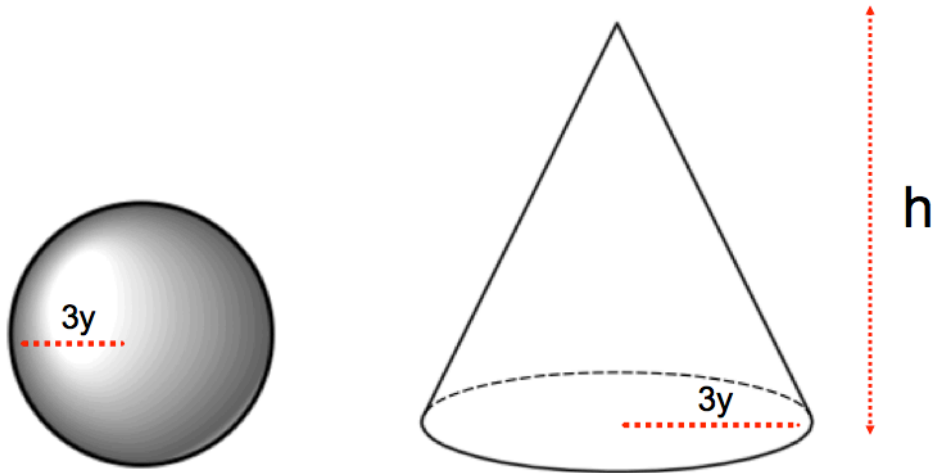
7. Three spheres of radius 4cm fit inside a tube.



Calculate the percentage of the tube that is not filled.

.....%
(6)

8. This sphere and cone have the same volume.



Find an expression for h in terms of y .

$h = \dots\dots\dots$
(5)