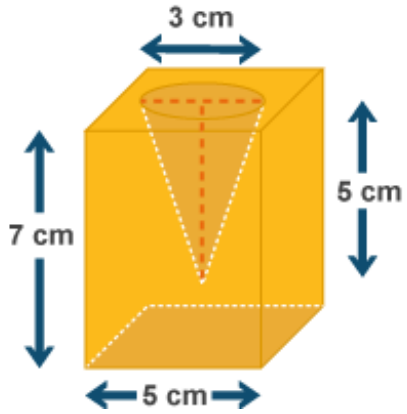
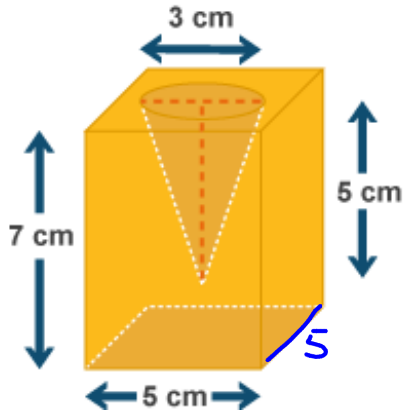
Find the exact volume.



Apr 25-10:17 AM

Find the exact volume.



Box - Cone $lwh - \frac{1}{3}\pi r^2 h$

$7 \cdot 5 \cdot 5 - \frac{1}{3}\pi (1.5)^2 5$

$175 - 3.75\pi \text{ cm}^3$

Apr 25-10:17 AM

Find the height if the volume of a cylinder is 78.25π cm^3 and the radius is 5 cm.

Apr 25-10:19 AM

Find the height if the volume of a cylinder is 78.25π cm^3 and the radius is 5 cm.

$$V = \pi r^2 h$$

$$78.25\pi = \pi(5)^2 h$$

$$\frac{78.25\pi}{\pi} = \frac{25\pi h}{25\pi}$$

$$3.13 = h$$

cm

Apr 25-10:19 AM

Find the diameter rounded to the nearest tenths place if the volume of the sphere is approximately 65.88 cubic inches.

Apr 25-10:21 AM

Find the diameter rounded to the nearest tenths place if the volume of the sphere is approximately 65.88 cubic inches.

$V = \frac{4}{3}\pi r^3$

$\frac{65.88}{\left(\frac{4}{3}\pi\right)} = \frac{\frac{4}{3}\pi r^3}{\frac{4}{3}\pi}$

$\sqrt[3]{15.7277} \approx \sqrt[3]{r^3}$

$r \approx 2.5$

3 sig fig ANS $d = 5$

Apr 25-10:21 AM

Find the radius rounded to the nearest tenths place if the volume of a cone is approximately 120.5 cubic feet and the height is 10 feet.

Apr 25-10:23 AM

Find the radius rounded to the nearest tenths place if the volume of a cone is approximately 120.5 cubic feet and the height is 10 feet.

$V = \frac{1}{3}\pi r^2 h$

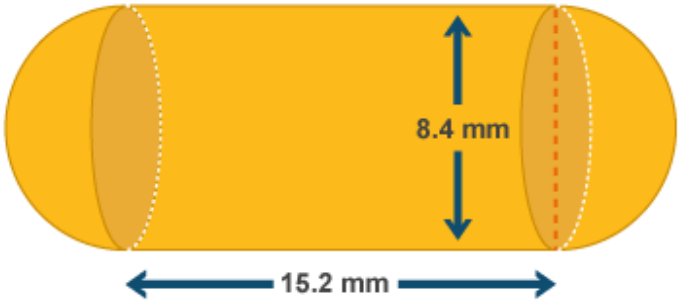
$\frac{120.5}{\left(\frac{1}{3}\cdot\pi\cdot 10\right)} = \frac{\frac{1}{3}\pi r^2(10)}{\left(\frac{1}{3}\cdot\pi\cdot 10\right)}$

$\sqrt{11.5069} = \sqrt{r^2}$

$r = 3.4$ ft

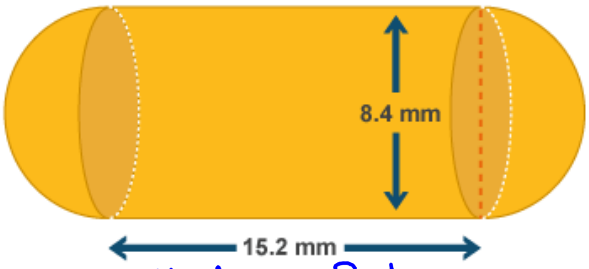
Apr 25-10:23 AM

Find the volume rounded to the nearest tenths place.



Apr 26-10:16 AM

Find the volume rounded to the nearest tenths place.



Cylinder + Sphere

$\pi r^2 h + \frac{4}{3}\pi r^3$

$\pi(4.2)^2(15.2) + \frac{4}{3}\pi(4.2)^3$

$842.3489 + 310.339$

1152.7

Apr 26-10:16 AM

What is the diameter of a sphere whose volume is 36π centimeters?

Apr 26-10:13 AM

What is the diameter of a sphere whose volume is 36π centimeters?

3 ✓

$V = \frac{4}{3}\pi r^3$

$\frac{36\pi}{\pi} = \frac{\frac{4}{3}\pi r^3}{\pi}$

$\frac{3}{4} \cdot 36 = \frac{4}{3} r^3 \cdot \frac{3}{4}$

$27 = r^3$

$r = 3 \quad d = 6$

Apr 26-10:13 AM