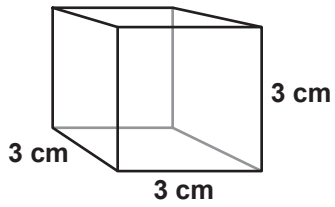
math Antics
Exercises

Name:

Date:

Volume

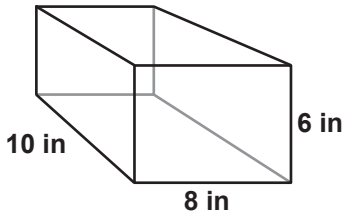
1 Find the volume of this cube.



Area of Base $= 3 \times 3 = 9 \text{ cm}^2$

Volume $= 9 \text{ cm}^2 \times 3 \text{ cm} = \boxed{27 \text{ cm}^3}$

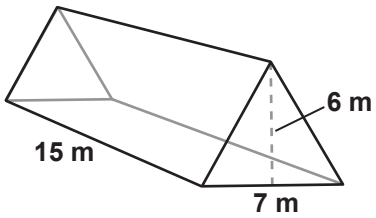
2 Find the volume of this rectangular prism.



Area of Base $= 6 \times 8 = 48 \text{ in}^2$

Volume $= 48 \text{ in}^2 \times 10 \text{ in} = \boxed{480 \text{ in}^3}$

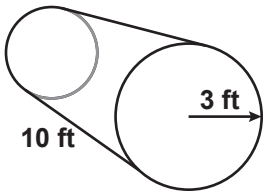
3 Find the volume of this triangular prism.



Area of Base $= \frac{1}{2}(6 \times 7) = \frac{42}{2} = 21 \text{ m}^2$

Volume $= 21 \text{ m}^2 \times 15 \text{ m} = \boxed{315 \text{ m}^3}$

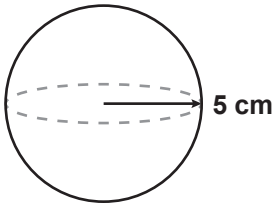
4 Find the volume of this cylinder.



Area of Base $= \pi \times (3 \text{ ft})^2 = 3.14 \times 9 \text{ ft}^2$
$= 28.26 \text{ ft}^2$

Volume $= 28.26 \text{ ft}^2 \times 10 \text{ ft}$
$= \boxed{282.6 \text{ ft}^3}$

5 Find the volume of this sphere.

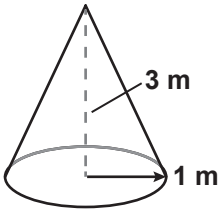


Volume $= \frac{4}{3} \times \pi \times r^3$

$= \frac{4}{3} \times 3.14 \times (5 \times 5 \times 5) \text{ cm}^3$

$= \frac{4 \times 392.5}{3} = \boxed{523.33 \text{ cm}^3}$

6 Find the volume of this cone.



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

$= \frac{1}{3} \times 3\text{m} \times 3.14 \times (1 \times 1) \text{ m}^2$

$= 1 \text{ m} \times 3.14 \text{ m}^2 = \boxed{3.14 \text{ m}^3}$

See Video for step-by-step solutions to each problem.