Inspiring Greatness

ISD

INDEPENDENCE SCHOOL DISTRICT

Math Virtual Learning

Grade 7

Volume of Cylinders

May 21, 2020

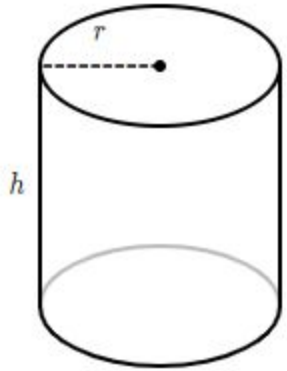
Grade 7/Volume of Cylinders
Lesson: May 21, 2020

Objective/Learning Target: Find Volume of Cylinders

Let's Get Started:
Watch Video: Volume of Cylinders

Practice:

Find the volume of the cylinder.

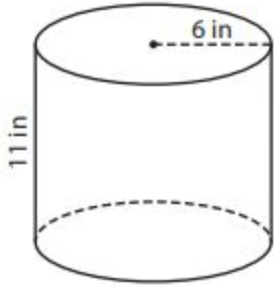


$V = \pi r^2 h$

$V = Bh$

V=(area of the base) x (height)

$V = (\pi r^2) \cdot h$



Volume = $\pi r^2 h$

Volume = (3.14) 6^2 (11)

Volume = (3.14)36(11)

Volume = 1243.44 in^3

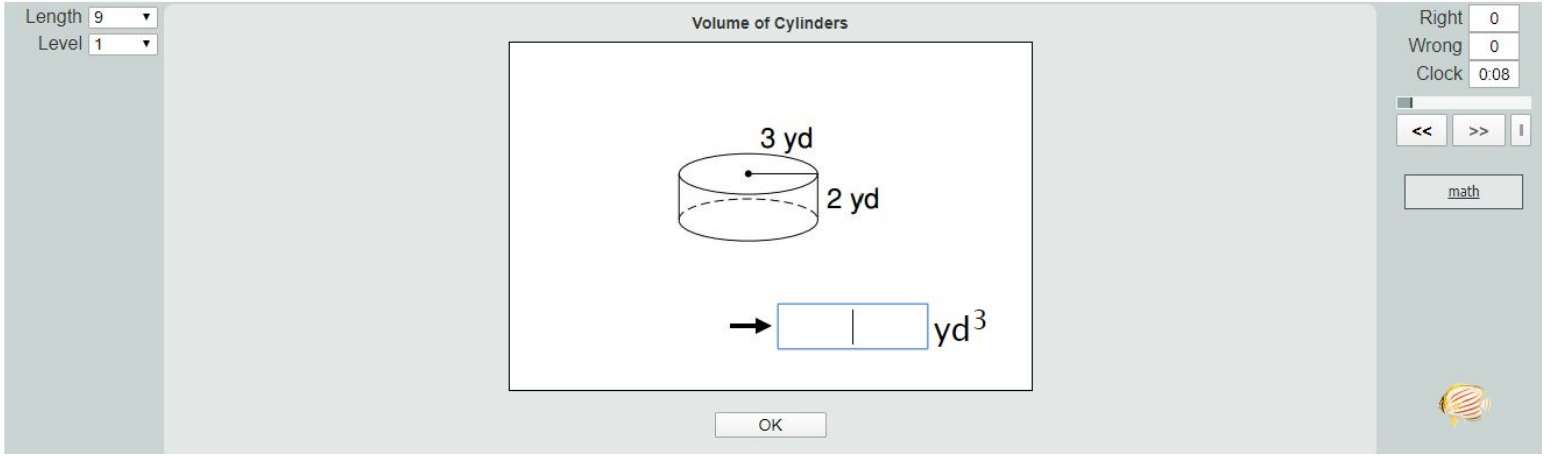
Correct Answer

Practice:

Go to this website:

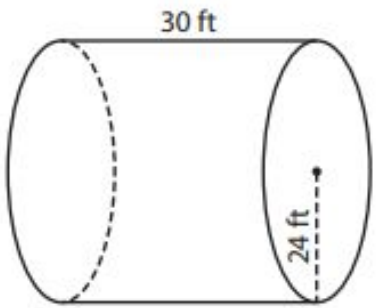
Volume of Cylinders

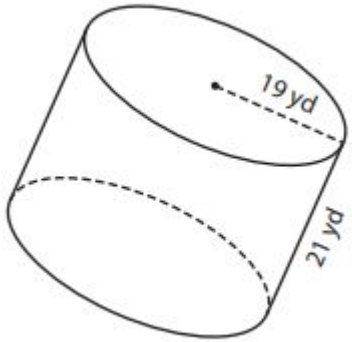
1. The first slide is instructions. Read and click “OK”.
2. Starting on slide 2, look at the cylinder carefully.
3. Solve the problem.
4. Type in your answer and click “OK”.



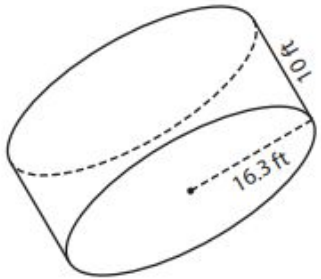
Practice:

Answer the questions on a piece of paper.
Find the volume of the cylinder.



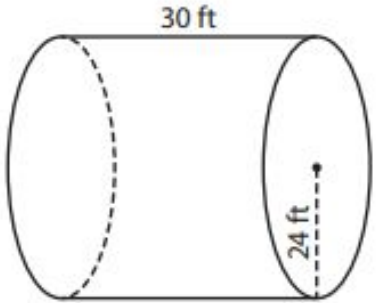


A cylindrical flower vase is 11 inches tall. Find the volume of the vase, if the radius is 4 inches.



Answer Key:

Once you have completed the problems, check your answers here.

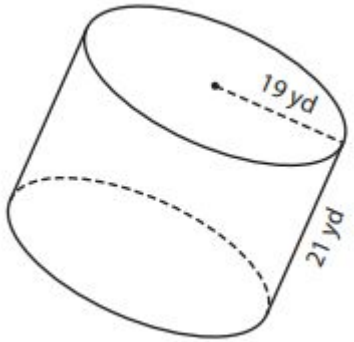


Volume = $\pi r^2 h$

Volume = (3.14) 24^2 (30)

Volume = (3.14)576(30)

Volume = 54,259.2 ft^3



Volume = $\pi r^2 h$

Volume = (3.14) 19^2 (21)

Volume = (3.14)361(21)

Volume = 23,804.34 yd^3

Answer Key:

Once you have completed the problems, check your answers here.

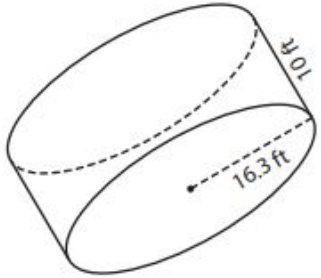
A cylindrical flower vase is 11 inches tall. Find the volume of the vase, if the radius is 4 inches.

Volume = $\pi r^2 h$

Volume = (3.14) 4^2 (11)

Volume = (3.14)16(11)

Volume = 552.64 in^3



Volume = $\pi r^2 h$

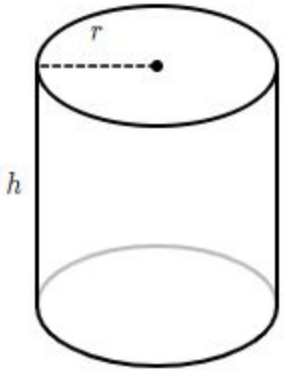
Volume = (3.14) 16.3^2 (10)

Volume = (3.14)265.69(10)

Volume = 8342.67 ft^3

Additional Practice:

Click on the links below to get additional practice and to check your understanding!



$V = \pi r^2 h$

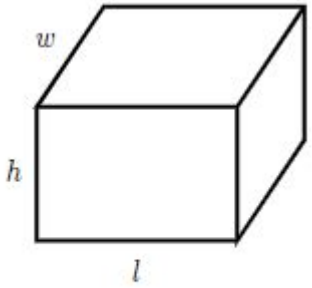
[Khan Academy] - Practice

[Quizizz] - Practice

[Open Middle] - Challenge

[Math Games] - Prisms and Cylinders

[IXL] - Prisms and Cylinders

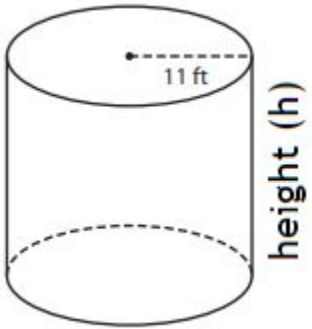


$V = l \cdot w \cdot h$

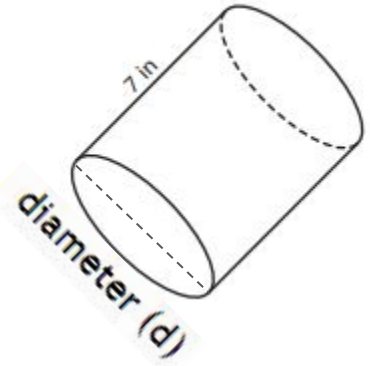
Additional Practice: Challenge

Find the missing measurement for the cylinders.

Volume = 6838.92 ft^3



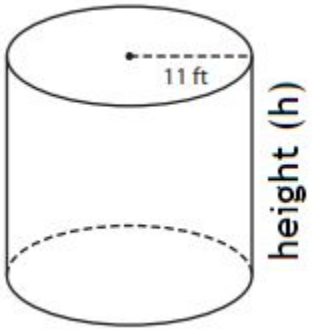
Volume = 197.82 in^3



Additional Practice: Challenge Answers

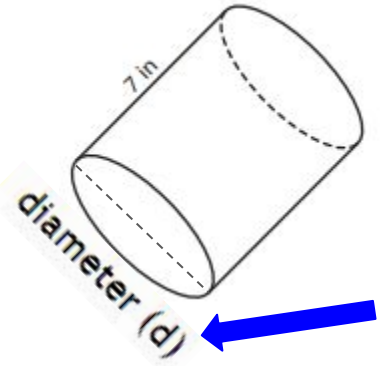
Once you have completed the problems, check your answers here.

Volume = 6838.92 ft^3



Volume = $\pi r^2 h$
6838.92 = (3.14) 11^2 (h)
6838.92 = (3.14)121(h)
6838.92 = 379.94(h)
6838.92 ÷ 379.94 = 379.94(h) ÷ 379.94
18 = h

Volume = 197.82 in^3



$d = 2r$
$d = 2(3)$
$d = 6$

Volume = $\pi r^2 h$
197.82 = (3.14) r^2 (7)
197.82 = 21.98 (r^2)
197.82 ÷ 21.98 = 21.98(r^2) ÷ 21.98
9 = r^2
$\sqrt{9} = \sqrt{r^2}$
3 = r