

VOLUME OF CYLINDERS

Name: _____ Class: _____ Due Date: _____

Family Member Signature: _____

Objective:

To determine the volume of cylinders using our knowledge of circles.

Necessary Information:

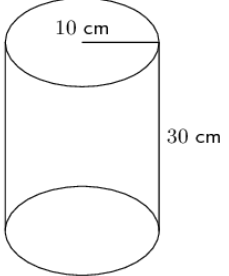
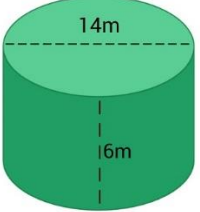

Calculators Allowed

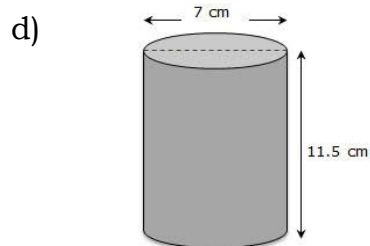
Area of a circle = $\pi \times r \times r$

$$V_{\text{prism}} = A_{\text{base}} \times h_{\text{prism}}$$

Practice Section:

1) Find the volume of each cylinder.

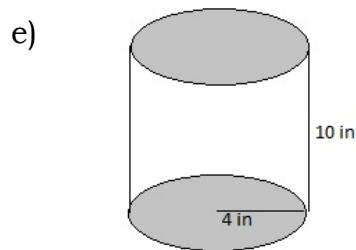
| Cylinder | A_{base} | h_{prism} | V_{prism} |
|--|-------------------|--------------------|--------------------|
| a)  | | | |
| b)  | | | |
| c)  | | | |



$A_{\text{base}} = \underline{\hspace{2cm}}$

$h_{\text{prism}} = \underline{\hspace{2cm}}$

$V_{\text{prism}} = \underline{\hspace{2cm}}$



$A_{\text{base}} = \underline{\hspace{2cm}}$

$h_{\text{prism}} = \underline{\hspace{2cm}}$

$V_{\text{prism}} = \underline{\hspace{2cm}}$

f) A cylinder measuring 10 feet tall that has a circle base with a radius of 6 feet.

$A_{\text{base}} = \underline{\hspace{2cm}}$

$h_{\text{prism}} = \underline{\hspace{2cm}}$

$V_{\text{prism}} = \underline{\hspace{2cm}}$

g) A circle base with diameter of 1.2 km and a prism height of 5.5 km.

$A_{\text{base}} = \underline{\hspace{2cm}}$

$h_{\text{prism}} = \underline{\hspace{2cm}}$

$V_{\text{prism}} = \underline{\hspace{2cm}}$

In Your Real World:

With a family member, answer the following question.

Christian Marian Becheanu saved a toddler in 2013 by allowing himself to be lowered 50 feet down a well that measured 1.5 feet across.

a) Determine the volume of space Christian travelled through until he reached the toddler.

