Name _____ Date _____ Class _____

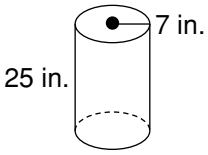
Ready to Go On? Skills Intervention

SECTION 10B

10-9 Volumes of Cylinders

Finding the Volume of a Cylinder

Find the volume V of the cylinder to the nearest cubic unit. Use 3.14 as an estimate for π.



$V = \pi r^2 h$

$V \approx$ _____ • _____ • _____ What will you substitute for π, r, and h?

$V \approx$ _____ Multiply.

The volume is about _____.

Home Economics Application

A cylindrical measuring glass, with a diameter of 6 inches, is filled with cooking oil to a height of 4 inches. Estimate the volume of cooking oil in the glass to the nearest cubic inch.

$r =$ _____ $\div 2 =$ _____ Find the radius.

$V = \pi r^2 h$

$V \approx$ _____ × _____ × _____ What will you substitute for π, r, and h?

$V \approx$ _____ Multiply.

The volume of cooking oil in the glass is about _____.

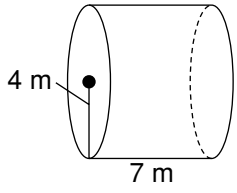
Comparing Volumes of Cylinders

Find which cylinder has the greater volume. Use 3.14 as an estimate for π.

Cylinder 1: $V = \pi r^2 h$

$V \approx$ _____ × _____ × _____

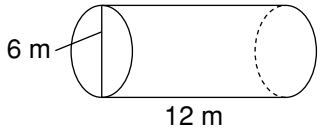
$V \approx$ _____



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

$V \approx$ _____ × _____ × _____

$V \approx$ _____



Which cylinder has the greater volume? Explain.

_____