#7

CHAP 11

12/13

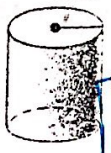
Find the ~~surface area~~ volume of each solid. Round to the nearest tenth.

1. 

$V = l \cdot w \cdot h$

$V = 10 \cdot 4 \cdot 4$

$V = 160 in^3$

2. 

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

$V = \pi 4^2 \cdot 9$

$V = 452.4 \ cm^3$

3. 

$7.5^2 + b^2 = 17^2$

$56.25 + b^2 = 289$

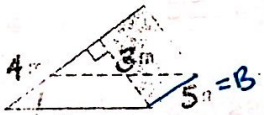
$b^2 = 232.75$

$l = 17m$

$b = 15.3$ ← height

$V = \frac{1}{3}(15 \cdot 15)(15.3)$

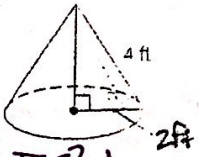
$V = 1147.5 m^3$

4. 

$V = \frac{1}{2}(b \cdot h) \cdot B$

$V = \frac{1}{2}(4 \cdot 3)(5)$

$V = 30 in^3$

5. 

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

$V = \frac{1}{3}\pi (2)^2 \cdot 4$ $= 16.8 ft^3$

6. 

$V = l \cdot w \cdot h$

$V = 12 \cdot 8 \cdot 5$

$V = 480 in^3$

Find the ~~volume~~ of each solid. Round to the nearest tenth.

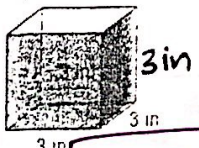
7. 

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

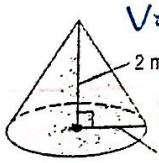
$V = \pi 5^2 \cdot 2$

$V = 157.1 \ cm^3$

$V = l \cdot w \cdot h$

8. 

$V = 27 in^3$

9. 

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

$= \frac{1}{3}\pi 1^2 \cdot 2$

$2.09 \ m^3$

CH 9?

1. Find the image of $\overline{UV}$ with $U(-3, 5)$ and $V(0, 8)$ under the translation $(x, y) \rightarrow (x + 2, y - 5)$.

$U(-3+2, 5-5) = (-1, 0)\ U'$

$V(0+2, 8-5) = (2, 3)\ V'$

2. Find the image of $\overline{CD}$ with $C(0, 4)$ and $D(3, 4)$ under a rotation of 90° counterclockwise about the origin.

$C'(-4, 0)$ $D'(-4, 3)$

3. Find the coordinates of Q'' if $\triangle OPQ$ with $O(4, 2)$, $P(5, 0)$, and $Q(1, -2)$ is reflected in the x-axis and then in the y-axis.

$Q''(-1, 2)$

4. Determine whether a regular 15-gon tessellates the plane. Explain.

5. If $CD = 3$ and $C''D'' = 8$, is the dilation an *enlargement*, *reduction*, or *congruence transformation*?

enlargement