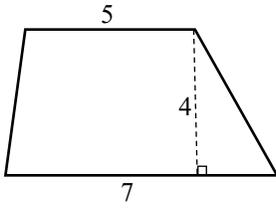


## Area and Volume Pre-Quiz **Key**

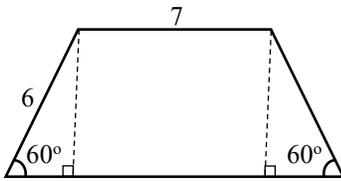
1. Find the area of the next quadrilaterals. Write the formula used:

(a).



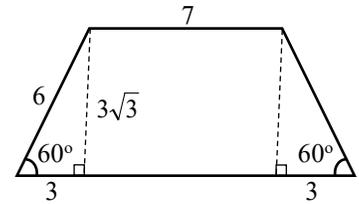
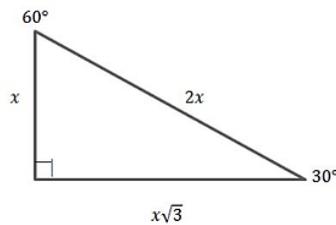
$$\begin{aligned} A &= \frac{(B+b)}{2} \cdot h \\ &= \frac{(7+5)}{2} \cdot 4 \\ &= 24 \end{aligned}$$

(b).



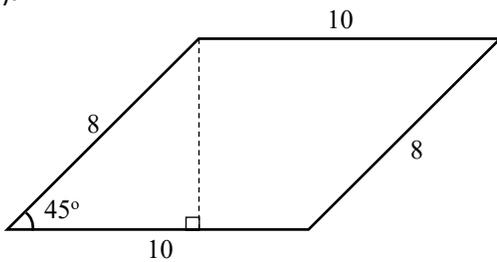
Using special right triangles

● 30-60-90



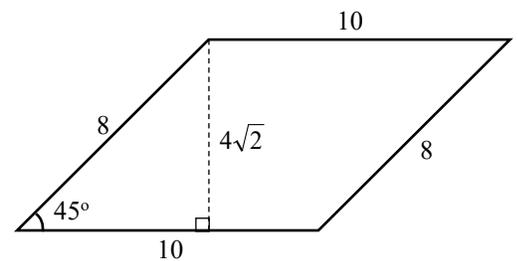
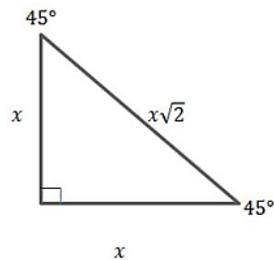
$$\begin{aligned} A &= \frac{(B+b)}{2} \cdot h \\ &= \frac{(13+7)}{2} \cdot 3\sqrt{3} \\ &= 30\sqrt{3} \end{aligned}$$

(c).



Using special right triangles

● 45-45-90



$$\begin{aligned} A &= b \cdot h \\ &= 10 \cdot 4\sqrt{2} \\ &= 40\sqrt{2} \end{aligned}$$

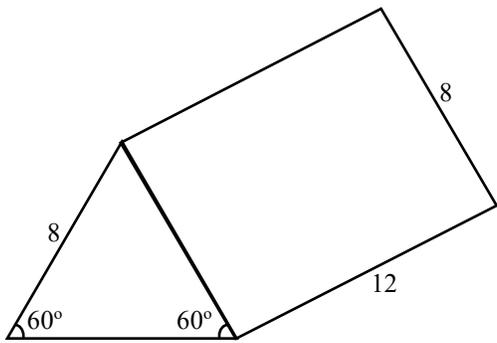
Name: \_\_\_\_\_

Group: \_\_\_\_\_

Date: \_\_\_\_\_

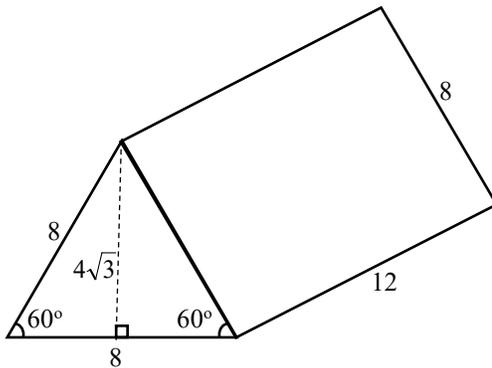
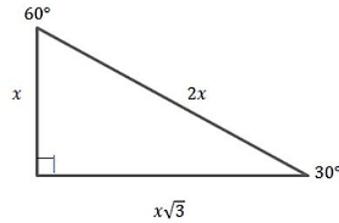
2. Find the volume of the prisms.

(a).



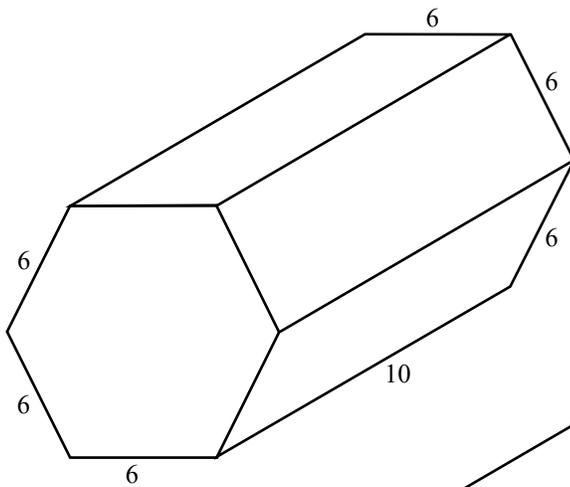
Using special right triangles

● 30-60-90



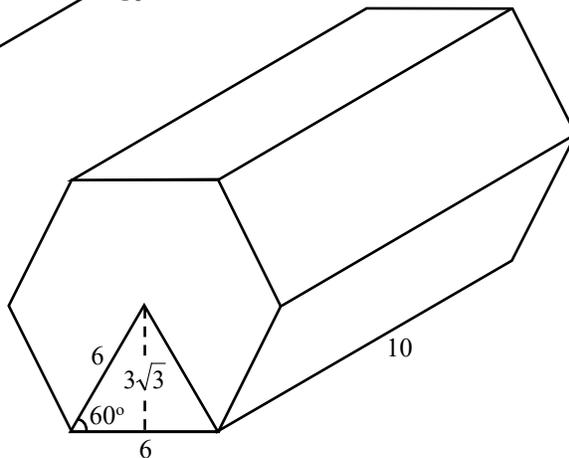
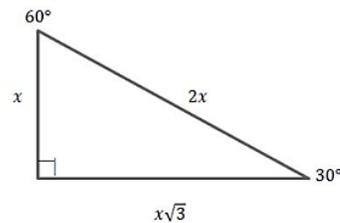
$$\begin{aligned} V &= A \cdot L \\ &= \frac{b \cdot h}{2} l \\ &= \frac{8 \cdot 4\sqrt{3}}{2} \cdot 12 \\ &= 192\sqrt{3} \end{aligned}$$

(b).



Using special right triangles

● 30-60-90



$$\begin{aligned} V &= A \cdot L \\ &= \frac{P \cdot a}{2} l \\ &= \frac{6 \cdot 6 \cdot 3\sqrt{3}}{2} \cdot 10 \\ &= 540\sqrt{3} \end{aligned}$$