Name: $\qquad$

### 4.6 Volume of a Right Triangular Prism - Worksheet

1. Find the volume of each triangular prism.
a)

b)


c)


$$
\begin{aligned}
& =60 \times 12 \\
& =720 \mathrm{~cm}^{3}
\end{aligned}
$$

2. A triangular prism has length 15 cm . Each triangular face has base 7 cm and height 9 cm . Find the volume of the prism. distance $b / t 2$ triangles.

$$
\begin{aligned}
V & =A h \\
& =\left(\frac{b h}{2}\right) \times h \\
& =\left(\frac{7 \times 9}{2}\right) \times 15 \\
& =31.5 \times 15 \\
& =472.5 \mathrm{~cm}^{3}
\end{aligned}
$$

3. John's attic is shaped like a right triangular prism with length 12 m . The triangular bases are isosceles triangles with base 10 m and height 4 m . What is the volume of the attic?
4. A package in the shape of a triangular prism has volume $225 \mathrm{~cm}^{3}$. Its length is 15 cm .
a) What is the area of the triangular base?
b) Describe one possible triangular base.

b) $\left(\frac{b h}{2}\right)^{x^{2}}=15^{x^{2}}$

$$
b h=30
$$

i) $b=6 \quad$ ii) $b=1$
$h=5$ $h=30$
iii) $b=15$

