

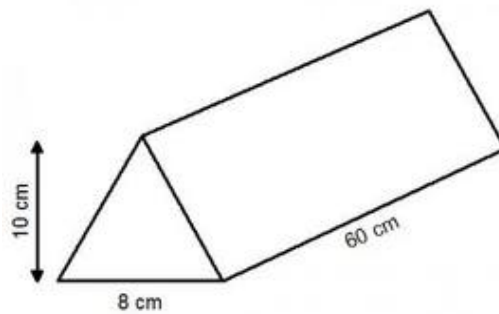
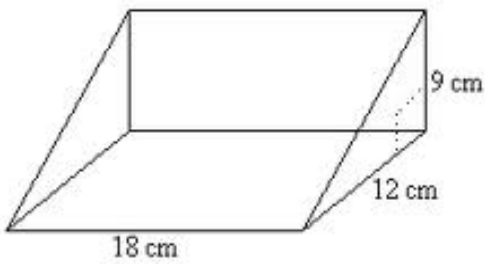
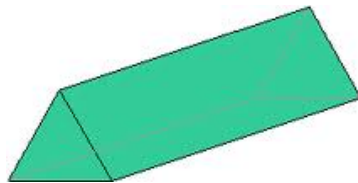
Warm-up



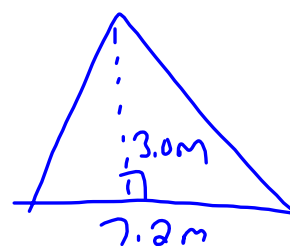
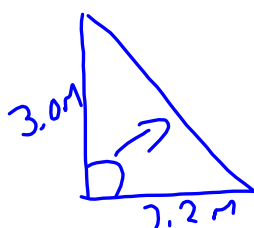
Surface Area Question

Surface area of Triangular Prism

November 22



1. Sketch a triangle that has a base 7.2 m, height 3.0 m



Then find the area. **Remember Area of Triangle**

$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{7.2 \times 3}{2} \\
 &= 10.8 \text{ m}^2
 \end{aligned}$$

Right Triangular Prism

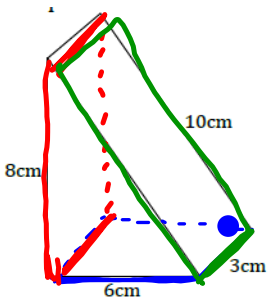
A right triangular prism has 5 faces:

- 2 congruent triangular faces
- 3 rectangular faces

The surface area of a triangular prism is the sum of the all 5 faces.

Surface area = $2 \times$ area of triangle + areas of rectangular faces

³



Draw the 5 faces!!!



$$A = \frac{bh}{2}$$

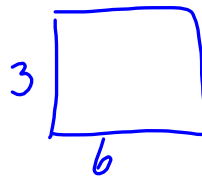
$$= \frac{8 \times 6}{2}$$

$$= \frac{48}{2}$$

$$= 24$$

$$\times 2$$

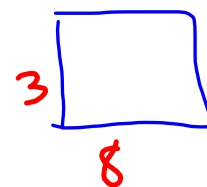
$$\textcircled{48}$$



$$A = bh$$

$$= 6 \times 3$$

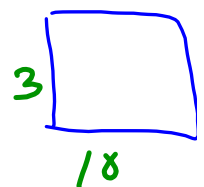
$$= 18$$



$$A = bh$$

$$= 3 \times 8$$

$$= 24$$

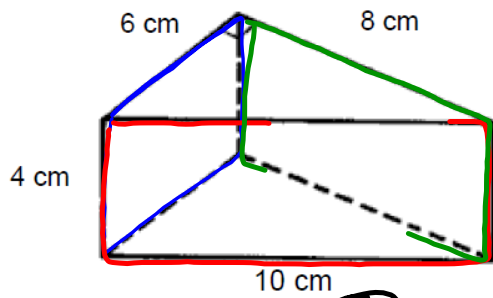


$$A = bh$$

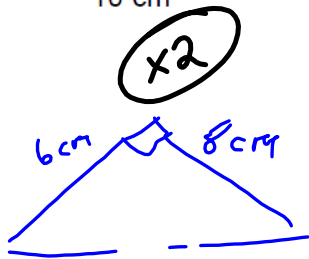
$$= 10 \times 3$$

$$= 30$$

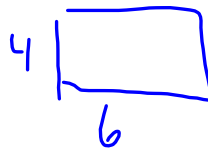
$$48 + 18 + 24 + 30 = \textcircled{120 \text{ cm}^2}$$



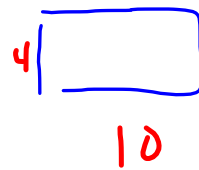
Draw 5 Faces



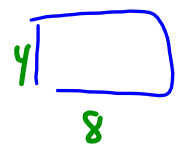
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{5 \times 6}{2} \\
 &= \frac{24}{2} \\
 &= 12
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 6 \times 4 \\
 &= 24
 \end{aligned}$$



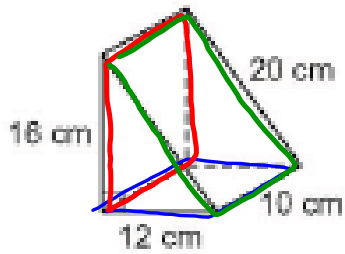
$$\begin{aligned}
 A &= bh \\
 &= 10 \times 4 \\
 &= 40
 \end{aligned}$$



$$\begin{aligned}
 A &= bh \\
 &= 8 \times 4 \\
 &= 32
 \end{aligned}$$

$$48 + 24 + 40 + 32 =$$

(144 cm²)



Draw the faces

Find the surface area

16

$$A = \frac{bh}{2}$$

$$= \frac{16 \times 12}{2}$$

$$= \frac{192}{2}$$

$$= 96$$

$$A = bh$$

$$= 12 \times 10$$

$$= 120$$

$$A = bh$$

$$= 10 \times 16$$

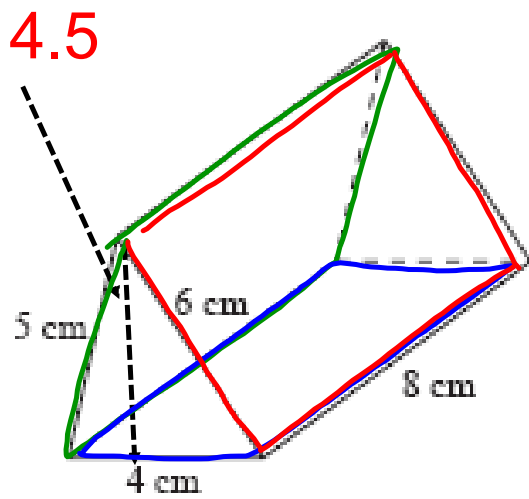
$$= 160$$

$$A = bh$$

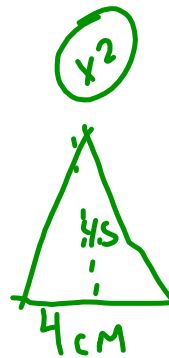
$$= 10 \times 20$$

$$= 200$$

$$192 + 120 + 160 + 200 = 672 \text{ cm}^2$$



- Draw the faces
- Find the surface area



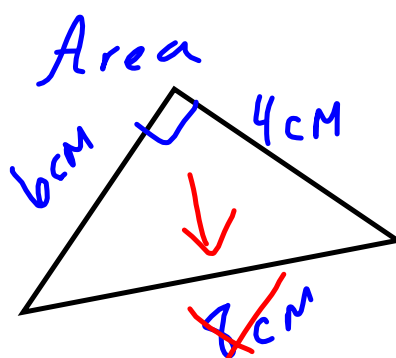
$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{4.5 \times 4}{2} \\
 &= \frac{9}{2} \\
 &= 4\frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 A &= bh \\
 &= 8 \times 5 \\
 &= 40
 \end{aligned}$$

$$\begin{aligned}
 A &= bh \\
 &= 8 \times 4 \\
 &= 32
 \end{aligned}$$

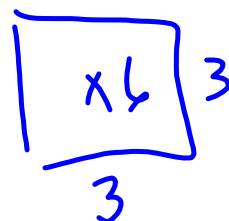
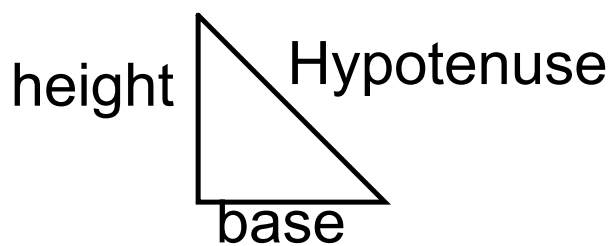
$$\begin{aligned}
 A &= bh \\
 &= 8 \times 6 \\
 &= 48
 \end{aligned}$$

138 cm²



$$\begin{aligned}
 A &= \frac{bh}{2} \\
 &= \frac{6 \times 4}{2} \\
 &= 12 \text{ cm}^2
 \end{aligned}$$

page 40
3 d, e $\leftarrow 360 \text{ cm}^2$
 $\leftarrow 256 \text{ cm}^2$



Attachments

nov22.notebook