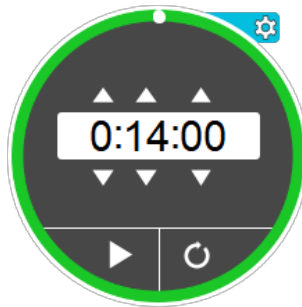


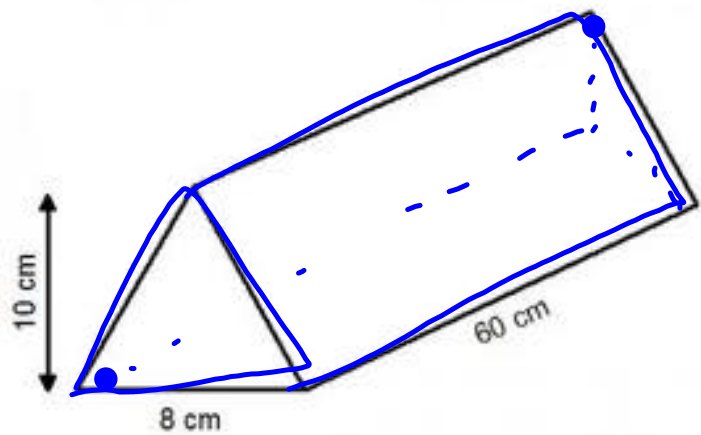
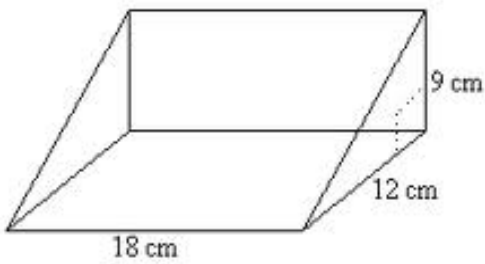
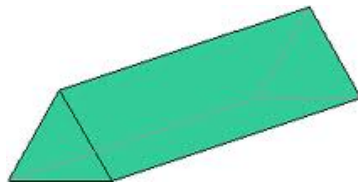
Warm-up



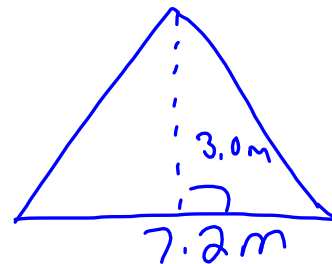
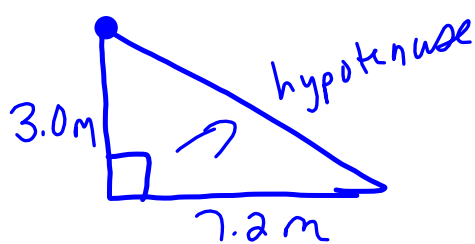
Surface Area Question

# Surface area of Triangular Prism

November 20



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



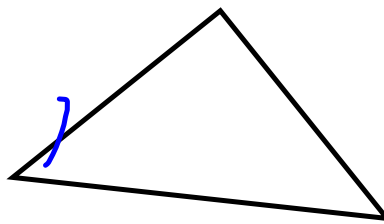
Then find the area.

**Remember Area of Triangle**

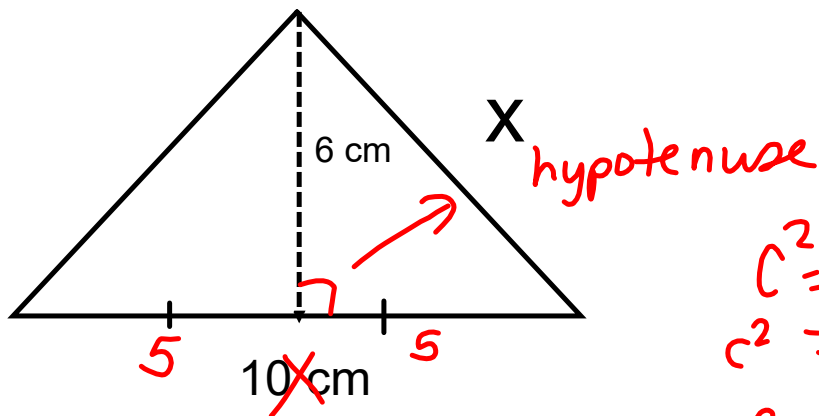
$$A = \frac{bh}{2}$$

$$= \frac{(7.2)(3)}{2}$$

$$= 10.8 \text{ m}^2$$



Find the length of "x" ← side



$$c^2 = a^2 + b^2$$

$$c^2 = 5^2 + 6^2$$

$$c^2 = 25 + 36$$

$$\sqrt{c^2} = \sqrt{61}$$

$$c = 7.8 \text{ cm}$$

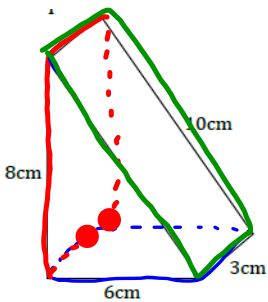
## Right Triangular Prism

A right triangular <sup>same</sup> prism has 5 faces:

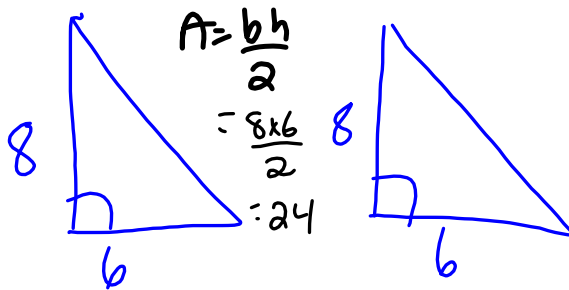
- 2 congruent triangular faces
- 3 rectangular faces

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**  
<sup>^3</sup>



Draw the 5 faces!!!



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

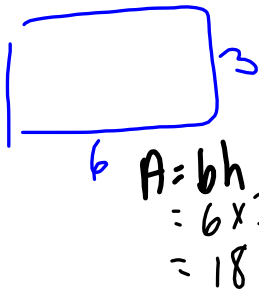
$$= \frac{8 \times 6}{2}$$

$$= 24$$

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

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

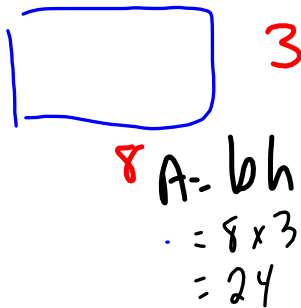
$$= 24$$



$$A = bh$$

$$= 6 \times 3$$

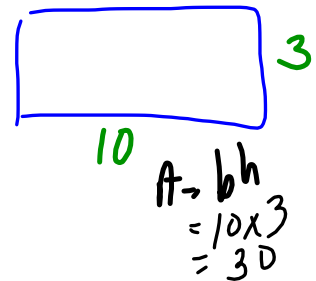
$$= 18$$



$$A = bh$$

$$= 8 \times 3$$

$$= 24$$

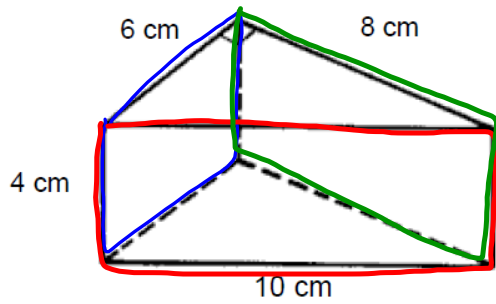


$$A = bh$$

$$= 10 \times 3$$

$$= 30$$

$$TSA: 24 + 24 + 18 + 24 + 30 = 120 \text{ cm}^2$$



Draw 5 Faces

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

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

$$= 24$$

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

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

$$= 24$$

$$A = bh$$

$$= 6 \times 4$$

$$= 24$$

$$A = bh$$

$$= 10 \times 4$$

$$= 40$$

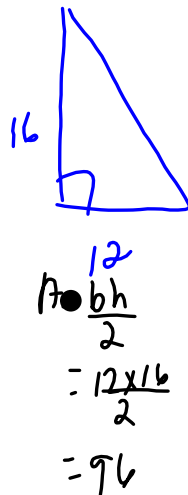
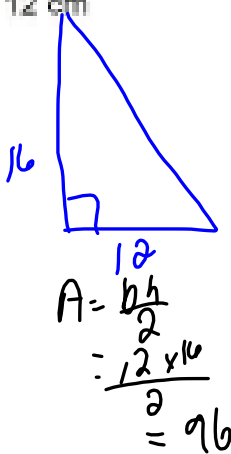
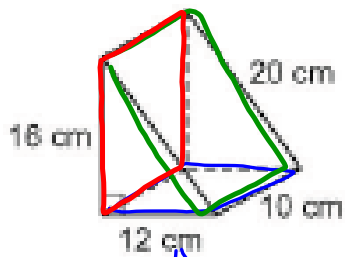
$$A = bh$$

$$= 8 \times 4$$

$$= 32$$

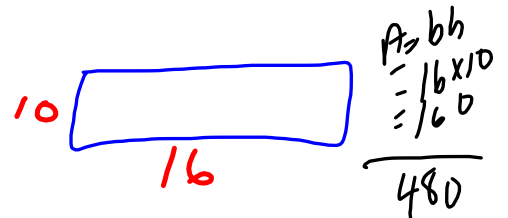
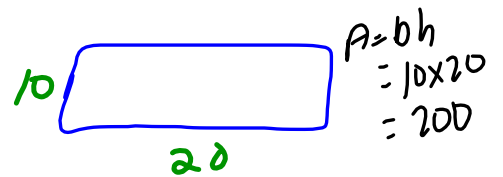
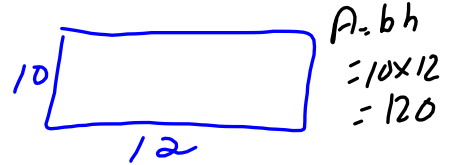
$$TSA = 24 + 24 + 24 + 40 + 32 = 144 \text{ cm}^2$$





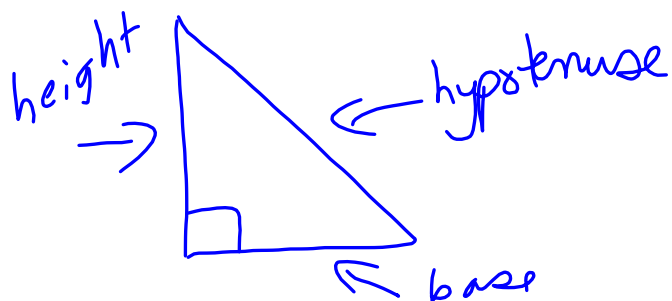
Draw the faces

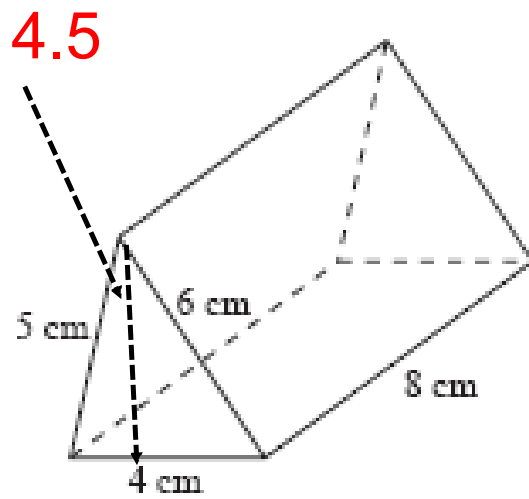
Find the surface area



$$TSA = 96 + 96 + 480 = 672 \text{ cm}^2$$

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





- Draw the faces
- Find the surface area

## Attachments

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nov22.notebook