

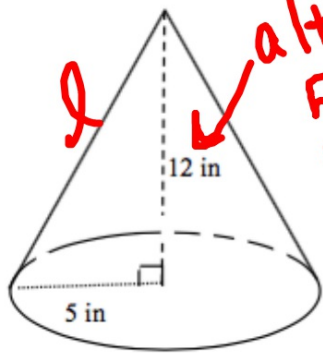
Example 4:

The radius of the base of a cone is 22 m. Its slant height is 10m. Find the lateral area and surface area. Leave your answer in terms of π .

$$SA = 704\pi m^2$$

Example 5:

Find the lateral area and surface area of the cone. Round your answer to the nearest tenth.



altitude!
 $5^2 + 12^2 = l^2$

$$13 = l$$

$$LA = \pi r l = \pi (5)(13) = 204.2 \text{ in}^2$$

$$SA = 204.2 + \pi (5)^2 = 282.7 \text{ in}^2$$

Summary:

$$SA_{PYR} = LA + B = \frac{1}{2} P_b \cdot l + B$$

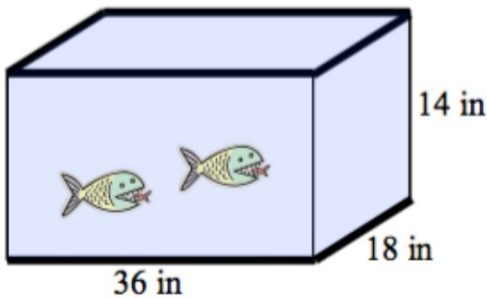
l = slant height (use Pythagorean theorem)

9.1-9.2 Practice

Read directions carefully. Leave all answers exact!

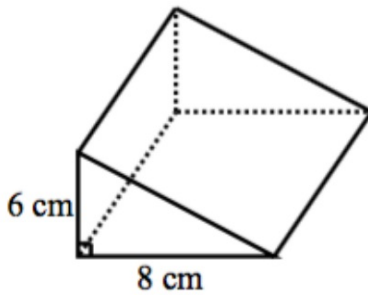
Challenge: $192\pi \text{ in}^2$

1. How much glass is used to make the aquarium below (assume a glass bottom, but no glass top)?



2160 in^2

2. Given the surface area of the triangle below is 312 cm^2 , find the height of the prism.



11 cm

3. Given the slant height of a cone is 6 inches and the lateral area is $108\pi \text{ in}^2$, find the radius.

18 in