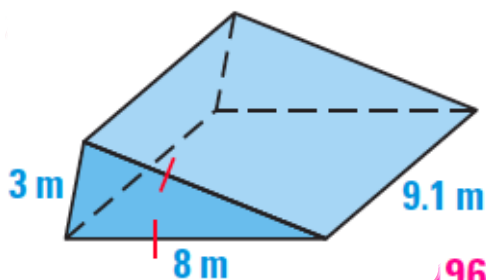


No Bellwork

05/10/12

Review 12.2

SURFACE AREA OF A PRISM Find the lateral area and surface area of the right prism. Round your answers to two decimal places.



$$SA = 2B + Ph$$

$$B = \frac{1}{2}bh$$

$$8^2 = x^2 + 1.5^2$$

$$x = 7.86$$

$$B = 11.79$$

$$P = 8 + 8 + 3 = 19$$

$$h = 9.1$$

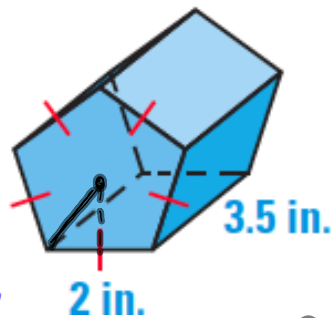
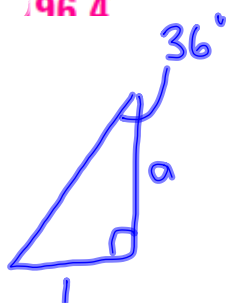
$$LA = Ph$$

$$= 19(9.1)$$

$$LA = 172.9 \text{ m}^2$$

$$SA = 2(11.79) + 172.9$$

$$SA = 196.48 \text{ m}^2$$



$$SA = 2B + Ph$$

$$B = \frac{1}{2}aP$$

$$\frac{360}{5} = \frac{72}{2} = 36$$

$$\tan 36 = \frac{1}{a}$$

$$a = \frac{1}{\tan 36}$$

$$a = 1.38$$

$$B = \frac{1}{2}(1.38)(10)$$

$$B = 6.88$$

$$P = 5(2) = 10$$

$$h = 3.5$$

$$LA = Ph$$

$$= 10(3.5)$$

$$LA = 35 \text{ in}^2$$

$$SA = 2(6.88) + 35$$

$$SA = 48.76 \text{ in}^2$$

Find the value of x .

$$S = 616 \text{ in.}^2$$

$$SA = 2B + Ph$$

$$\begin{aligned} B &= \frac{1}{2}bh \\ &= \frac{1}{2}(8)(17) \\ &= \boxed{68} \end{aligned}$$

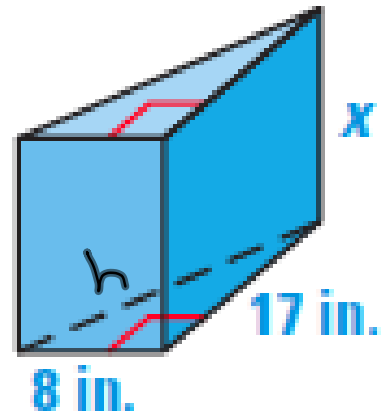
$$P = 8 + 17 + \sqrt{353}$$

$$h^2 = 8^2 + 17^2$$

$$h = \sqrt{353}$$

$$P = \boxed{43.79}$$

$$h = \boxed{x}$$



$$\begin{aligned} 616 &= 2(68) + 43.79x \\ 616 &= 136 + 43.79x \\ -136 &\quad -136 \end{aligned}$$

$$\begin{array}{r} 480 = 43.79x \\ \hline 43.79 \quad 43.79 \end{array}$$

$$\boxed{x = 10.96 \text{ in.}}$$

Homework Assignment

Worksheet 12.2B

Note #1: For #1, find the area of each piece and add them together!

Note #2: Do not do #11!