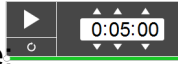
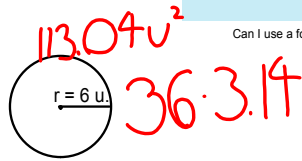
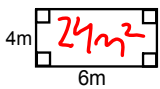
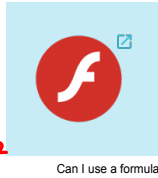
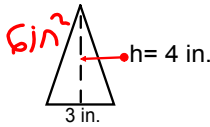
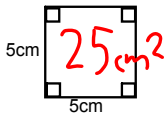


Warm-up



Find the Area of each figure:

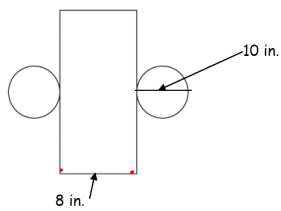


Surface Area of Cylinders



Where do you see cylinders in the real world?

Find the surface area of the cylinder shown as a net:



What shapes do you see?
How do you find the area of these shapes?

Area of bases (circles): πr^2

$$(3.14)(5^2)$$

$$(3.14)(25)$$

$$78.5 \text{ in}^2$$

$$(78.5)(2 \text{ bases}) = 157 \text{ in}^2$$

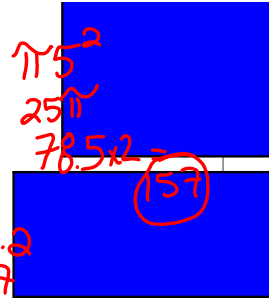
Area of lateral area: $2\pi rh$

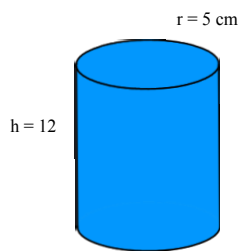
$$(2)(3.14)(5)(8)$$

$$251.2 \text{ in}^2$$

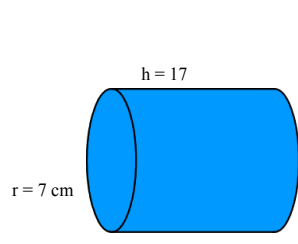
$$251.2 + 157$$

Total surface area: $157 + 251.2 = 408.2 \text{ in}^2$





$SA = 2\pi r^2 + 2\pi rh$
 $2(\pi)5^2 + 2(\pi)5 \cdot 12$
 $157 + 376.8$
 533.8 cm^2



$SA = 2\pi r^2 + 2\pi rh$
 $747.32 + 307.72$
 $1,055.04 \text{ m}^2$

Click on a cylinder below and play the "net animation" game that comes up on the website. Then do the interactive activity to the right of the animation.

