

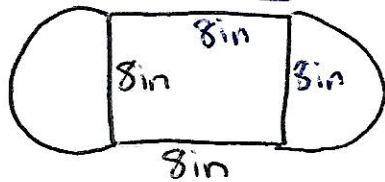
8.4 Area of Composite Figures

EQ: How can you find the area of a composite figure?

Reminder!

Area of a Triangle	$A = \frac{1}{2}bh$ or $\frac{bh}{2}$
Area of a rectangle	$A = lw$ (bh)
Area of a parallelogram	$A = bh$
Area of a circle	$A = \pi r^2$
Area of a semi-circle	$A = \frac{\pi r^2}{2}$

Example 1: Find the area of the composite figure.



$$d = \frac{8 \text{ in}}{2}$$

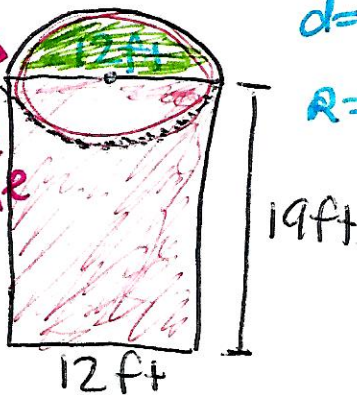
$$r = 4 \text{ in}$$

Area \triangle + Area \triangle + Area \square
 = whole circle

Area \circ + Area \square
 $\pi r^2 + bh$
 $[\pi(4)^2] + [8 \cdot 8]$
 $16\pi + 64$
 $16(3.14)$
 $50.24 + 64$
 $= 114.24 \text{ in}^2$

Example 2:

half of the circle is already included in the rectangle



$$d = \frac{12}{2}$$

$$r = 6$$

Area of \triangle + Area of \square
 $\frac{\pi r^2}{2} + bh$
 $\frac{\pi(6)^2}{2} + 19 \cdot 12$
 $\frac{36\pi}{2} + 228$
 $56.52 + 228 = 284.52 \text{ ft}^2$