

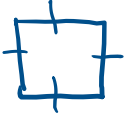

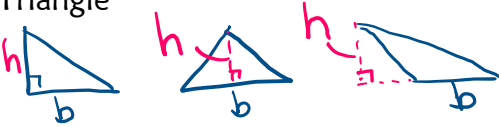

Area of Simple and Complex Figures

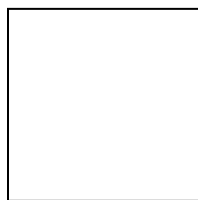
Name: _____

Date: _____

Area is the amount of space inside an object

Area can be found using formulas ...

Shape – Diagram	Formula
Square 	$A = s \times s$ or $A = s^2$
Rectangle 	$A = lw$
Triangle 	$A = \frac{bh}{2}$ or $A = bh \div 2$
Circle 	$A = \pi r^2$

When calculating area, units are squared

3.5 m

3.5 m

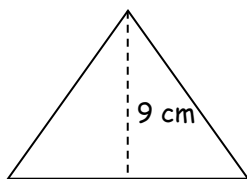
$$\begin{aligned}
 A &= s \times s \\
 &= 3.5 \times 3.5 \\
 &= 12.25 \text{ m}^2
 \end{aligned}$$



55 cm

125 cm

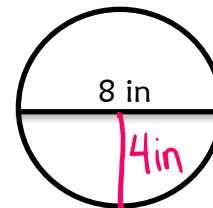
$$\begin{aligned}
 A &= l \times w \\
 &= 125 \times 55 \\
 &= 6875 \text{ cm}^2
 \end{aligned}$$



14 cm

9 cm

$$\begin{aligned}
 A &= b \times h \div 2 \\
 &= 14 \times 9 \div 2 \\
 &= 63 \text{ cm}^2
 \end{aligned}$$



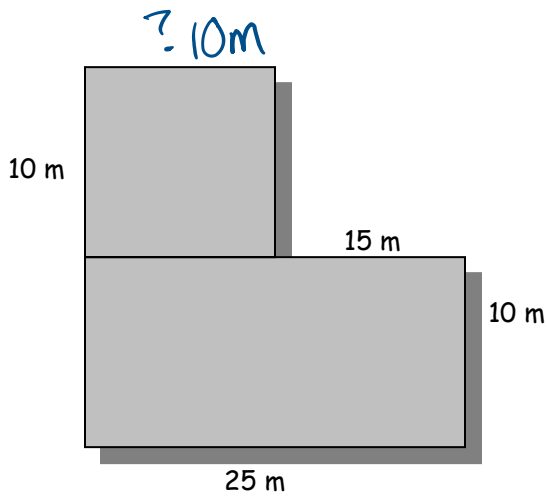
8 in

4 in

$$\begin{aligned}
 A &= \pi r^2 \\
 &= \pi 4^2 \\
 &= 50.27 \text{ in}^2
 \end{aligned}$$

Complex figures are made up of several simple figures put together.

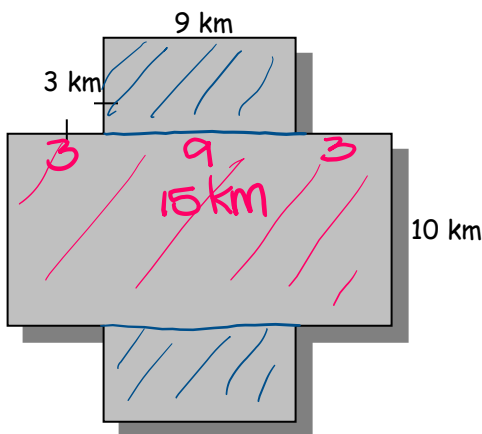
Strategy: find out separate shapes + add together



$$\begin{aligned} A_{\square} &= s \times s \\ &= 10 \times 10 \\ &= 100 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} A_{\square} &= l \times w \\ &= 25 \times 10 \\ &= 250 \text{ m}^2 \end{aligned}$$

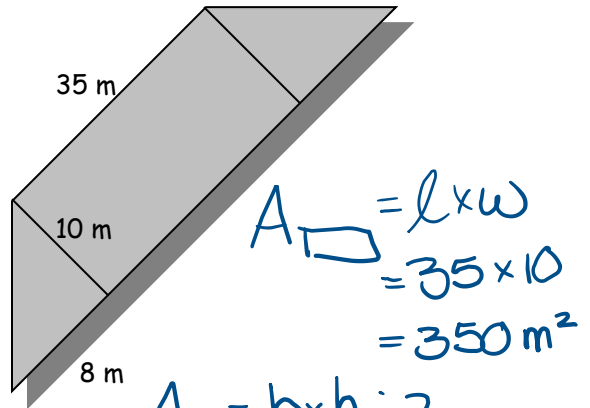
$$\begin{aligned} A_T &= 100 + 250 \\ &= 350 \text{ m}^2 \end{aligned}$$



$$\begin{aligned} A_{\square} &= l \times w \\ &= 9 \times 3 \\ &= 27 \text{ km}^2 \times 2 \\ &= 54 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} A_{\square} &= l \times w \\ &= 15 \times 10 \\ &= 150 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} A_T &= 54 + 150 \\ &= 204 \text{ km}^2 \end{aligned}$$

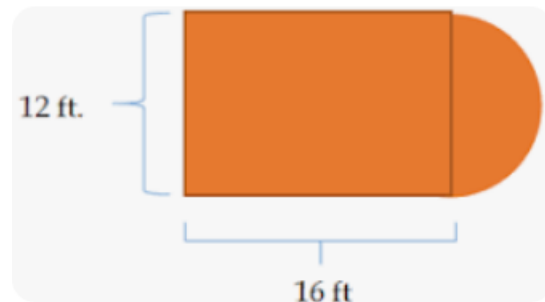


$$\begin{aligned} A_{\square} &= l \times w \\ &= 35 \times 10 \\ &= 350 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} A_{\Delta} &= b \times h \div 2 \\ &= 8 \times 10 \div 2 \\ &= 40 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} 2\Delta &= 40 \times 2 \\ &= 80 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} A_T &= 350 + 80 \\ &= 430 \text{ m}^2 \end{aligned}$$



$$\begin{aligned} A_{\square} &= l \times w \\ &= 16 \times 12 \\ &= 192 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} A_{\circ} &= \pi r^2 \\ &= \pi \times 6^2 \\ &= 113.1 \text{ ft}^2 \\ &\div 2 \\ &= 56.55 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} A_T &= 192 + 56.55 \\ &= 248.55 \text{ ft}^2 \end{aligned}$$