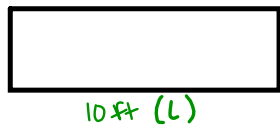


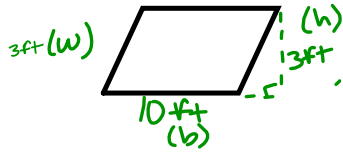
Lesson 8a: 2D Shape Area Review



$$A = lw$$

$$A = (10)(3)$$

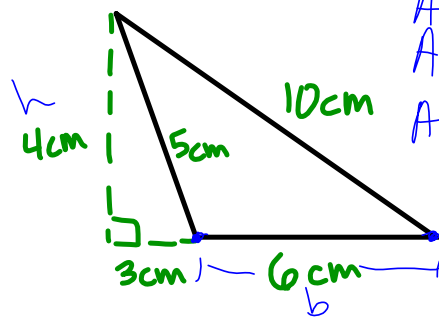
$$A = 30 \text{ ft}^2$$



$$A = bh$$

$$A = (10)(3)$$

$$A = 30 \text{ ft}^2$$



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

$$A = \frac{1}{2}(6)(4)$$

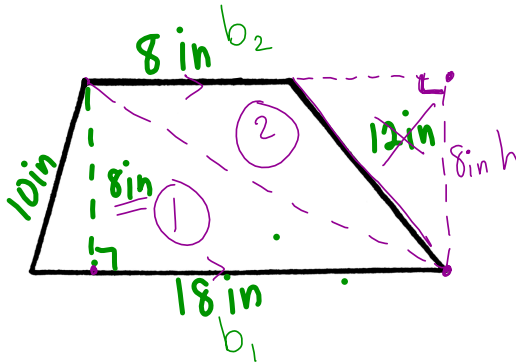
$$A = 12 \text{ cm}^2$$

Decomposition learned in Course 1

①  $A = \frac{1}{2}bh$   
 $A = \frac{1}{2}(18)(8)$   
 $A = 72 \text{ in}^2$

②  $A = \frac{1}{2}bh$   
 $A = \frac{1}{2}(8)(8)$   
 $A = 32 \text{ in}^2$

TOTAL  
 $72 + 32$   
 $= 104 \text{ in}^2$



$2(x+4)$   
 $2(x) + 2(4)$

Deriving the Formula

$$A = \frac{1}{2}bh + \frac{1}{2}bh$$

$$A = \frac{1}{2}h(b_1) + \frac{1}{2}h(b_2)$$

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$A = \frac{1}{2}(b_1 + b_2)h$$

Both area formulas joined

Factor using Distributive Property

Rearrange with Commutative property)

$$A = \frac{1}{2}(b_1 + b_2)h$$

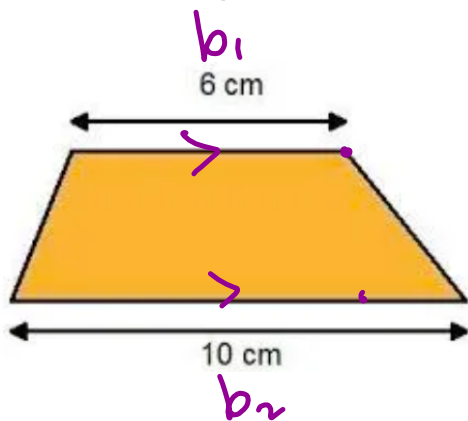
$$A = \frac{1}{2}(18 + 8)(8)$$

$$A = \frac{1}{2}(26)(8)$$

$$A = 104 \text{ in}^2$$

$$\begin{array}{r} 2 \\ 13 \\ \times 8 \\ \hline 104 \end{array}$$

NOTE: This is question 6 of the kahoot that we did together.



$$A = \frac{1}{2} (b_1 + b_2) h$$
$$A = \frac{1}{2} (6 + 10) (3)$$
$$A = \frac{1}{2} (16) (3)$$
$$A = 24 \text{ cm}^2$$