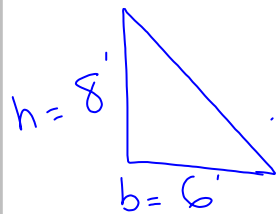


10-2 Area of Triangles and Trapezoids

$$A = b \cdot h \times \frac{1}{2}$$

or

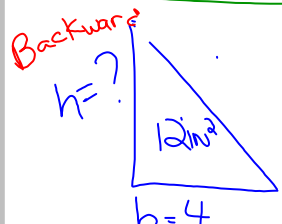
$$A = \frac{b}{1} \cdot \frac{h}{1} \cdot \frac{1}{2} = \frac{bh}{2}$$



$h = 8'$
 $b = 6'$

$$A = \frac{b \cdot h}{2}$$
$$= \frac{48}{2}$$
$$= 24 \text{ ft}^2$$

Backward?



$h = ?$
 12 in^2
 $b = 4$

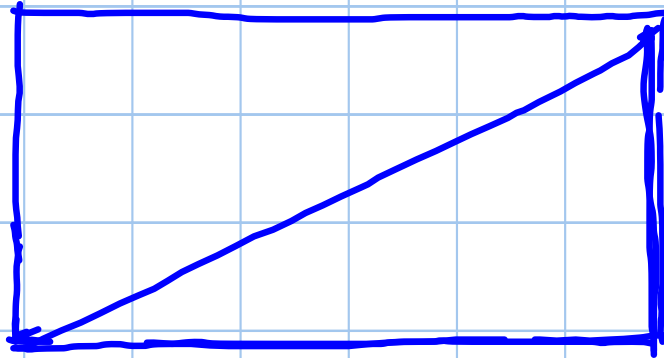
If $A = 12 \text{ in}^2$
 $h =$

step 1 Take Area and Mult x 2

$$12 \times 2 = \underline{24}$$

step 2 $24 \div 4 = 6 = h$

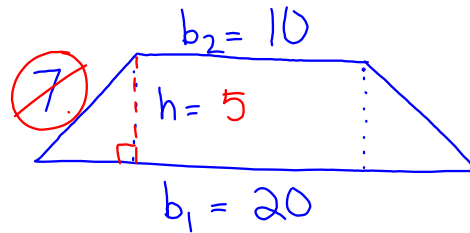
3"



6"

$$A = 18'' \text{ sq}$$

Area of a Trapezoid



Need
3 things
 $b_1 = \text{base 1 (bottom)}$
 $b_2 = \text{base 2 (top)}$
 $h = \text{height (vertical)}$

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

$$= \frac{1}{2} \cdot 5 \cdot (20 + 10)$$

$$= \frac{1}{2} \cdot 5 \cdot \underline{30}$$

$$= \frac{1}{2} \cdot 150$$

$$A = 75 \text{ UN sq.}$$

$$A = 112 \text{ cm}^2$$

$$b_1 = 12$$

$$b_2 = 16$$

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

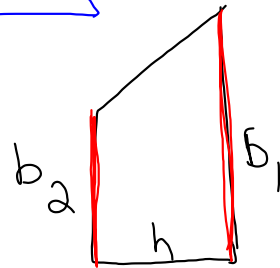
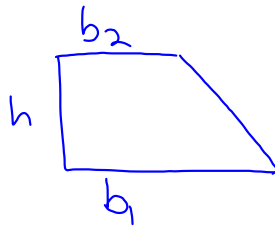
$$h = ? \quad A = \frac{1}{2} \cdot h \cdot 28$$

$$112 = h \cdot \frac{1}{2} \cdot 28$$

$$112 = 14h$$

$$112 \div 14 = h$$

$$8 = h$$



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