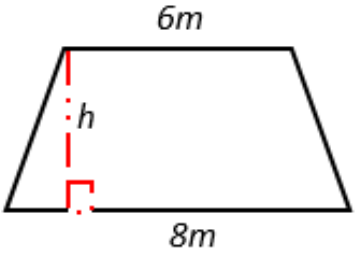
4.35 (Pg 168) Finding Base or Height of Trapezoids

Area=28m²



When not given height…

Step 1 Write the Formula! $A = \frac{1}{2} h(b_1+b_2)$

Step 2 Write what you know! $28 = \frac{1}{2} h (6+8)$

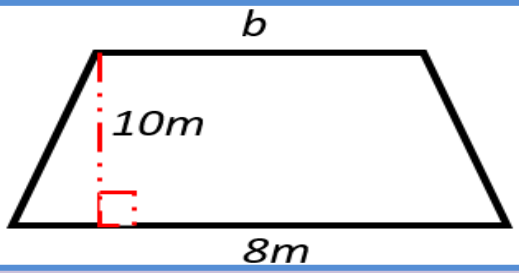
Step 3 Clean and Solve. $28= \frac{1}{2} h (14)$

Combine like terms $28 = 7 h$

Step 4 Use Inverse Operation $28/7 = 7h/7$

Divide both sides by 7 $4 = h$ "Height is 4 meters"

Area=60m²



When not given one of the bases…

Step 1 Write the Formula! $A = \frac{1}{2} h(b_1+b_2)$

Step 2 Write what you know! $60 = \frac{1}{2} 10 (8+b)$

Step 3 Clean and Solve. $60= 5 (8+b)$

Divide from both sides $\frac{60}{5} = \frac{5\,(8+b)}{5}$

Subtract from both sides $12\ (-8) = 8+b(-8)$

$4 = b$ So the base is 4m.