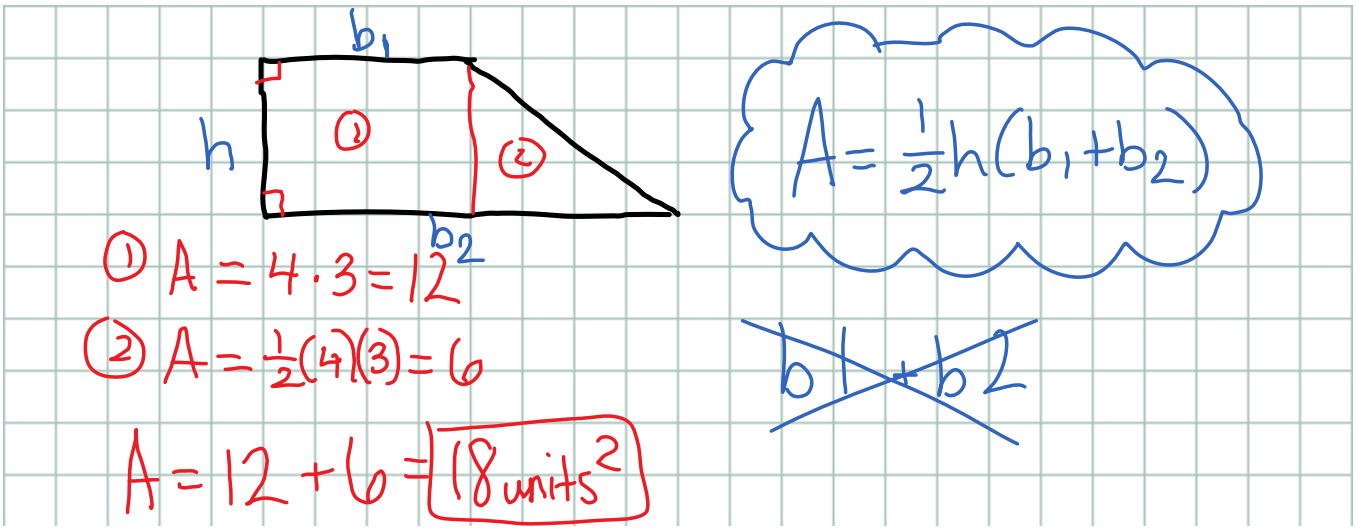
Name: _____ Date: _____

# Area of Trapezoids




① $A = 4 \cdot 3 = 12$

② $A = \frac{1}{2}(4)(3) = 6$

$A = 12 + 6 = \boxed{18 \text{ units}^2}$

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

~~$b_1 + b_2$~~

**Find the area of each trapezoid. Label your answer appropriately.**

1.


48ft²

18ft²

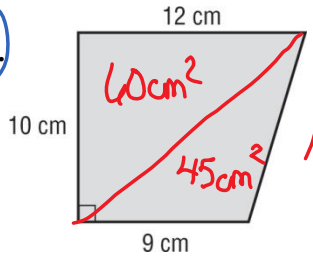
$A = \frac{1}{2}(6)(8+14)$

$B = 22$

$H = 6$

$\boxed{66 \text{ ft}^2}$

2.




60cm²

45cm²

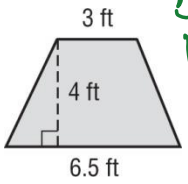
$b_1 + b_2 = 12 + 9 = 21$

$h = 10$

$A = \frac{1}{2}(10)(21)$

$= \frac{1}{2}(210) = \boxed{105 \text{ cm}^2}$

3.




$b_1 + b_2 = 3 + 6.5 = 9.5$

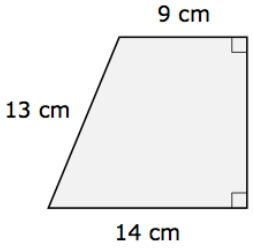
$h = 4$

$A = \frac{1}{2}(4)(9.5)$

$A = 2(9.5)$

$\boxed{A = 19 \text{ ft}^2}$

4.




$b_1 + b_2 = 9 + 14$

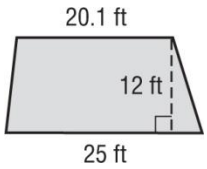
$= 23 \text{ cm}$

$h = 12$

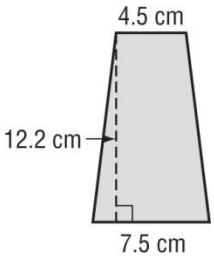
$A = \frac{1}{2} \cdot 12 \cdot 23$

$A = 6 \cdot 23 = 138 \text{ cm}^2$

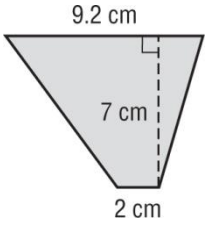
**5.**



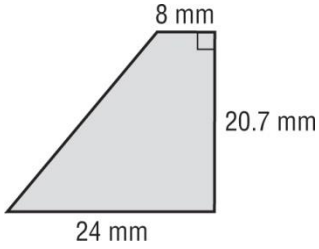

**6.**




**7.**




**8.**




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

***Find the missing dimension of the trapezoid. Label your answer appropriately.***

**9. Area = 72 square inches**
**base 1 = 9 inches**
**base 2 = 15 inches**
**height = __6__ inches**

$72 = \frac{1}{2}h(9+15)$

$72 = \frac{1}{2}(24)h$

$\frac{72}{12} = \frac{12h}{12}$ $h = 6$

**10. Area = 88 square centimeters**
**base 1 = 10 centimeters**
**base 2 = 12 centimeters**
**height = _____ centimeters**