

Trapezoids:

A. Definitions

A trapezoid is a 4-sided figure that has 2 parallel sides of different lengths. (If it had 2 parallel sides of the same length, the figure would be a parallelogram.)

B. Basic Memorizations

Area = $\frac{h \cdot (b_1 + b_2)}{2}$ where 'h' is the height and b_1, b_2 are the 2 bases

C. Examples

Ex [1] Find the area of a trapezoid with bases 4" and 5" that has a height of 6".
_____ in².

a. The answer is $\frac{6 \cdot (4+5)}{2} = 3 \times 9 = 27$.

Ex [2] Find the area of a trapezoid with bases 5ft and 7ft that has a height of 5ft.
_____ ft².

a. The answer is $\frac{5 \cdot (5+7)}{2} = 5 \times 6 = 30$.