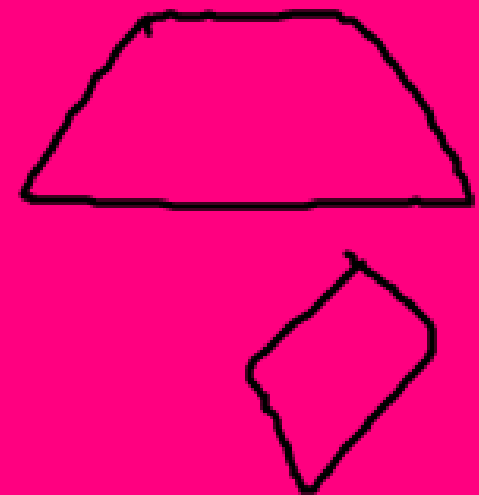


11 - 2

**Areas of Triangles,
Trapezoids, and Rhombi**



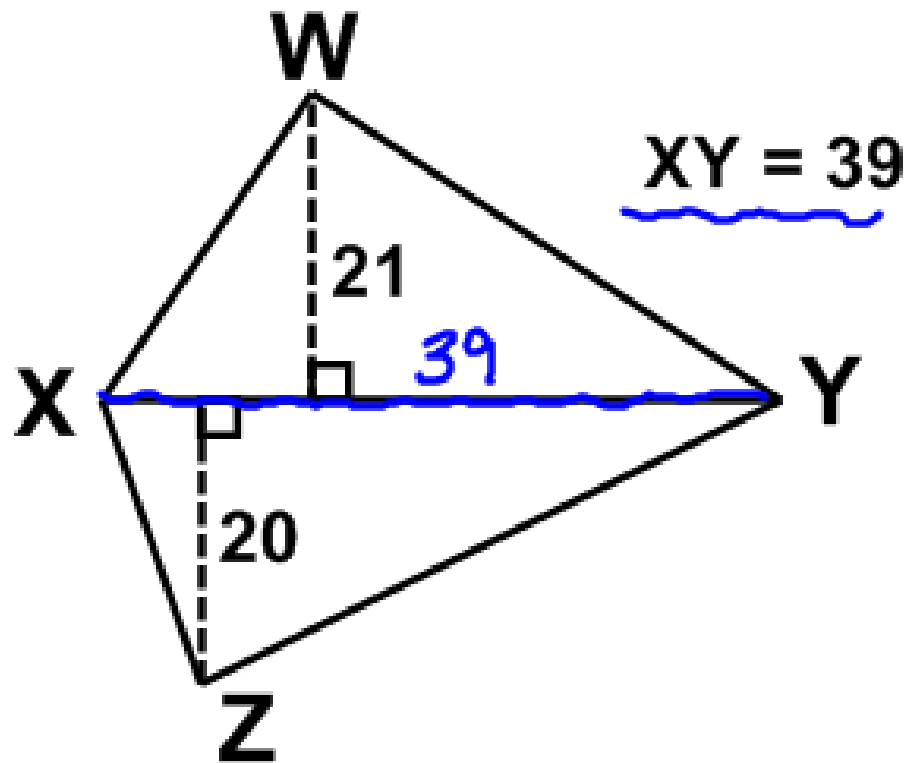


triangle: $\frac{1}{2}bh$

trapezoid: $\frac{1}{2}(b_1 + b_2)h$

rhombus: $\frac{1}{2}d_1d_2$

Ex:



$$\frac{1}{2} \cdot 39 \cdot 21 = 409.5$$

$$+ \frac{1}{2} \cdot 39 \cdot 20 = 390$$

$$\boxed{799.5}$$

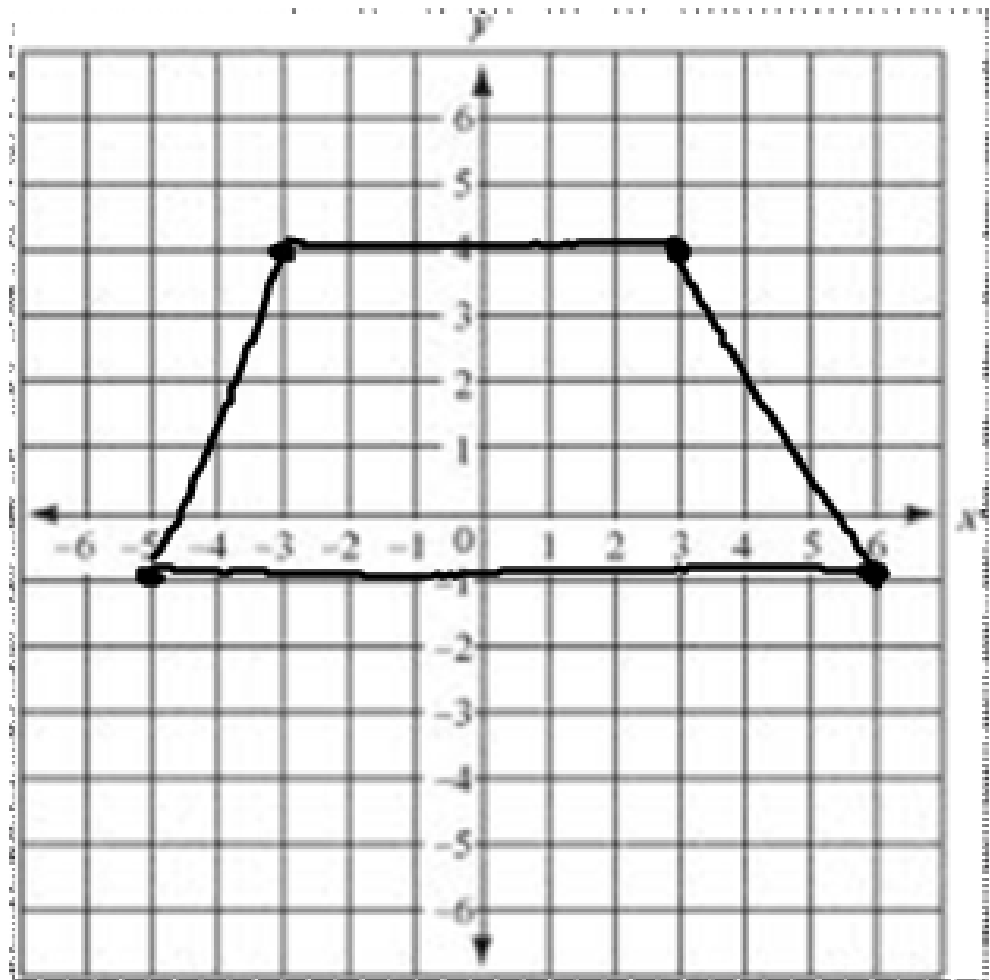
Ex: Find the area of a trapezoid with vertices $(-3, 4)$, $(3, 4)$, $(-5, -1)$, and $(6, -1)$.

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

$$\frac{1}{2}(6 + 11)5$$

$$\frac{1}{2}(17)5$$

$$42.5 \text{ u}^2$$

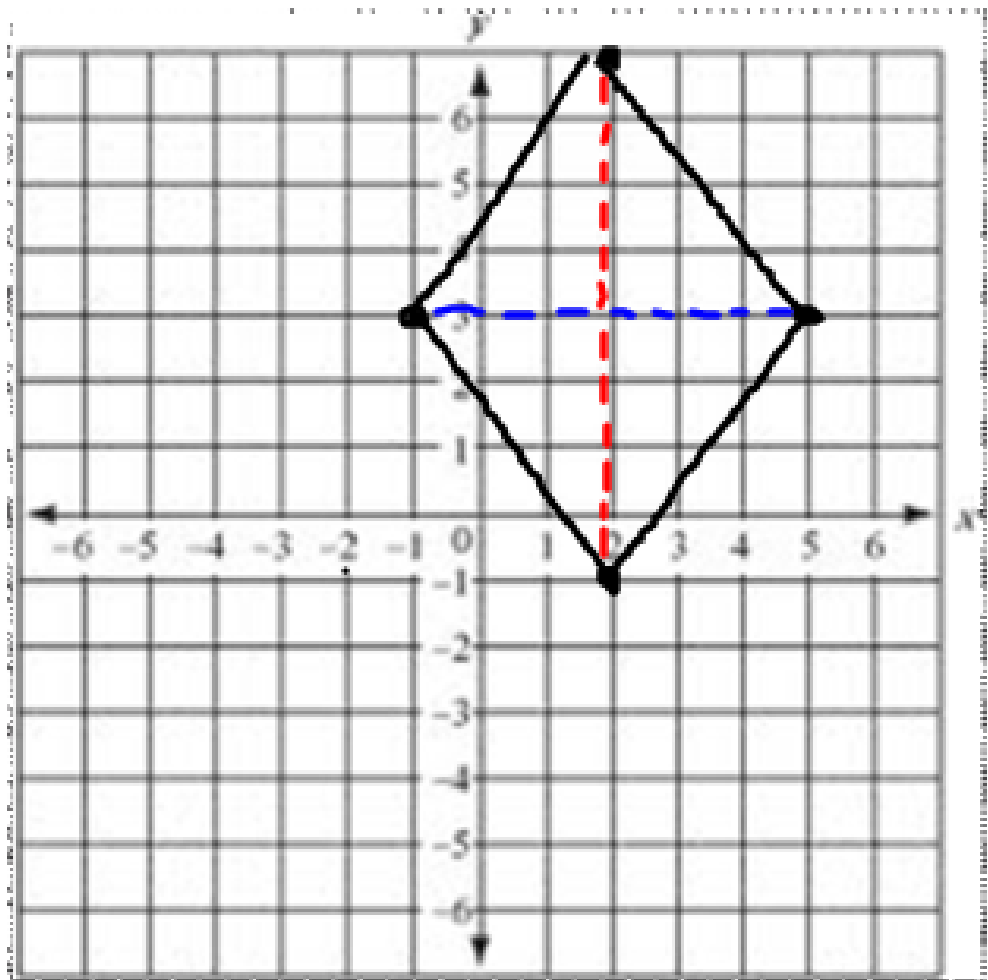


Ex: Find the area of a rhombus with vertices (2, 7), (5, 3), (2, -1), and (-1, 3).

$$\frac{1}{2} d_1 d_2$$

$$\frac{1}{2} \cdot 6 \cdot 8$$

$$24 \text{ u}^2$$





Homework:

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