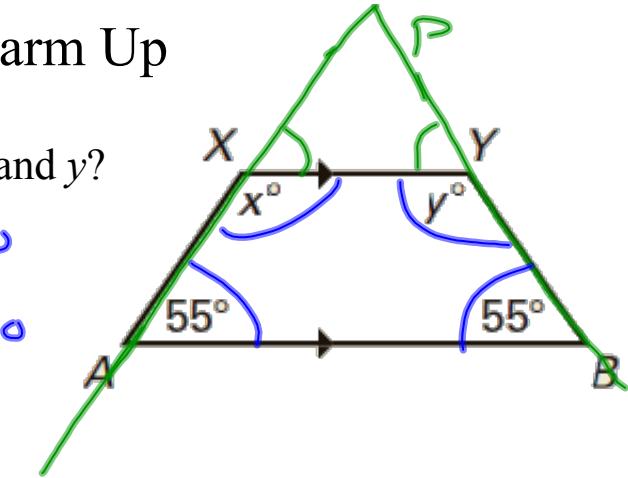


Warm Up

1. What are the values of x and y ?

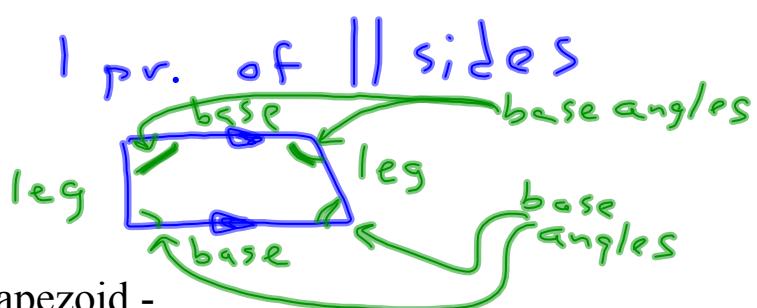
$$\begin{aligned}m\angle X &= 125^\circ \\m\angle Y &= 125^\circ\end{aligned}$$



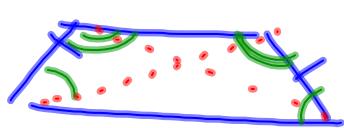
2. If \overrightarrow{AX} and \overrightarrow{BY} intersect at point P , what kind of triangle is $\triangle XPY$

8-5 Trapezoids and Kites

Trapezoid -

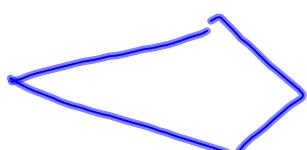


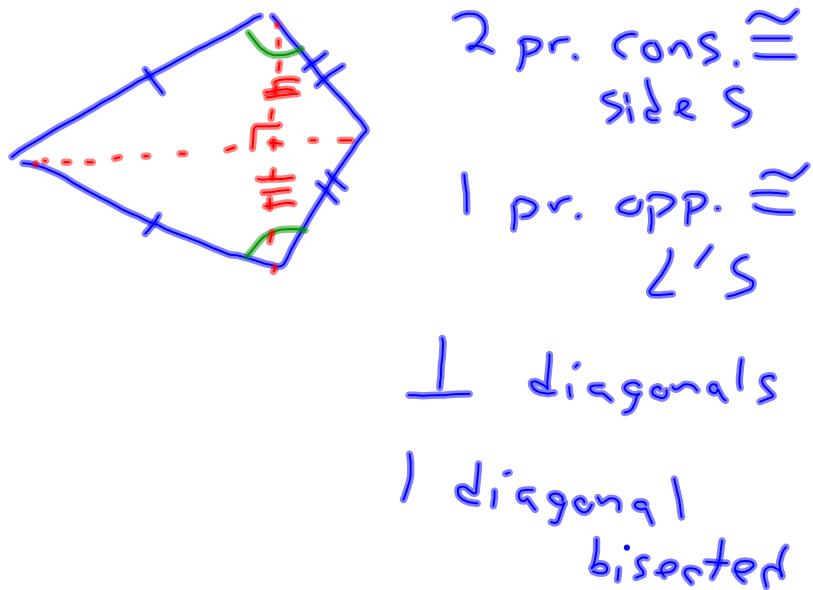
Isosceles Trapezoid -



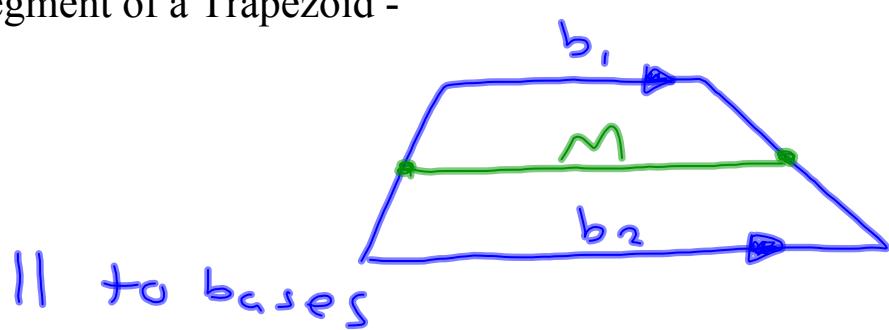
\approx base \angle 's
 \approx legs
 \approx diagonals

Kite -





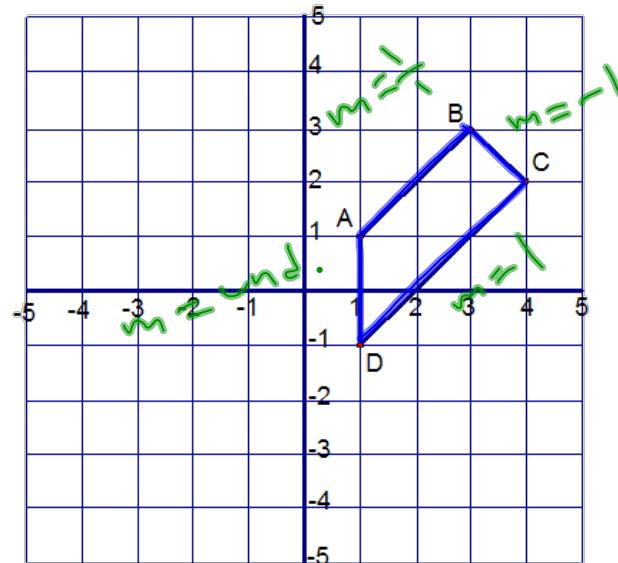
Midsegment of a Trapezoid -



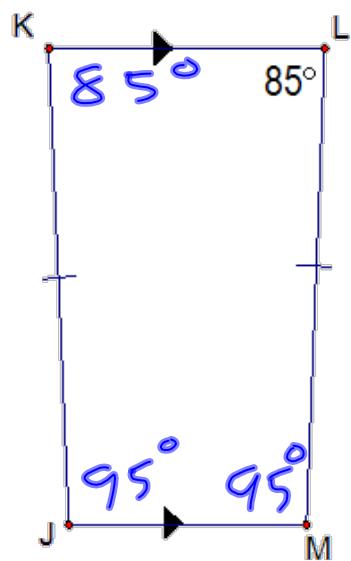
\parallel to bases

$$M = \frac{1}{2} (b_1 + b_2) - \text{the avg. of the bases}$$

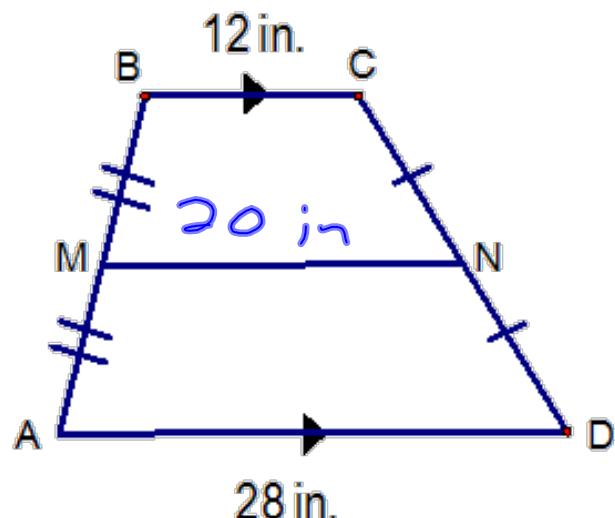
Ex 1: Show that $ABCD$ is a trapezoid



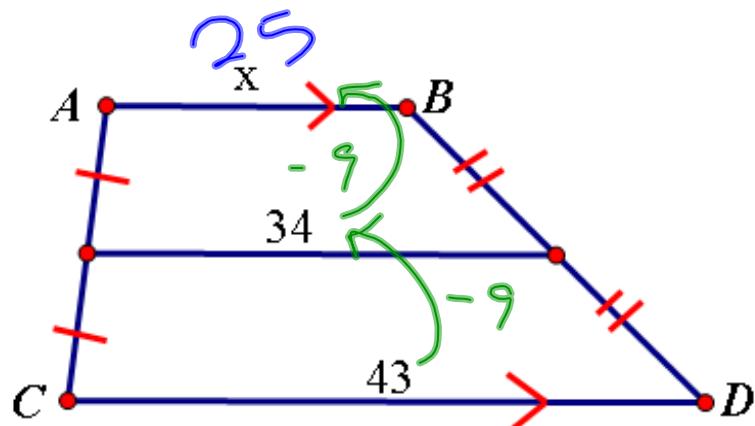
Ex 2: Find the measures of angles K , J , and M .



Ex. 3 \overline{MN} is the midsegment of trapezoid $ABCD$.
Find MN .



Ex 4 Find the value of x .



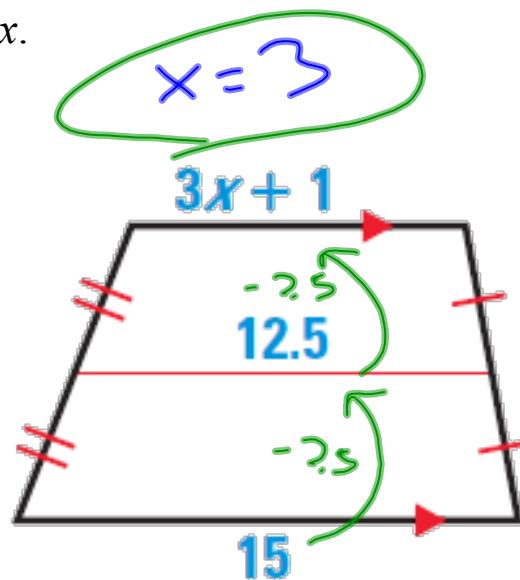
$$34 \cdot 2 = 68 - 43 = 25$$

$$M = \frac{b_1 + b_2}{2}$$

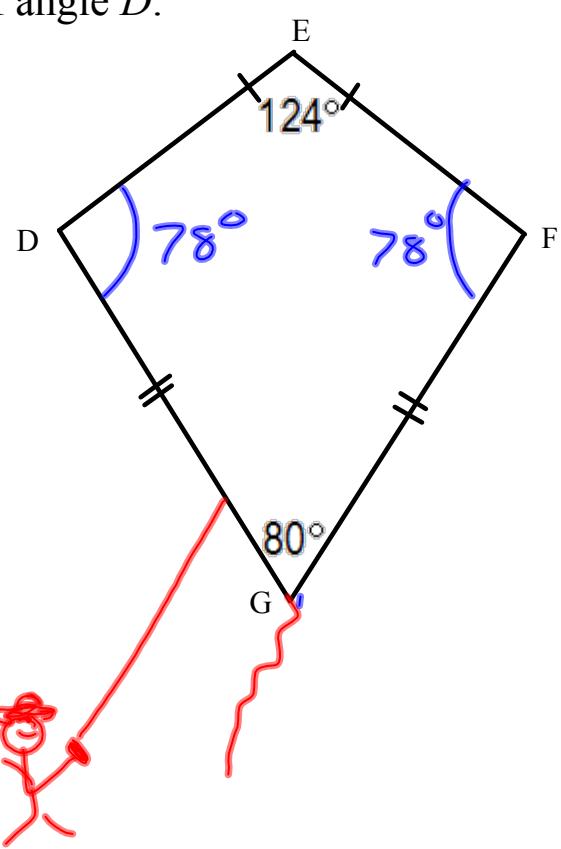
$$34 = \frac{43 + b_2}{2}$$

Ex. 5 Find the value of x .

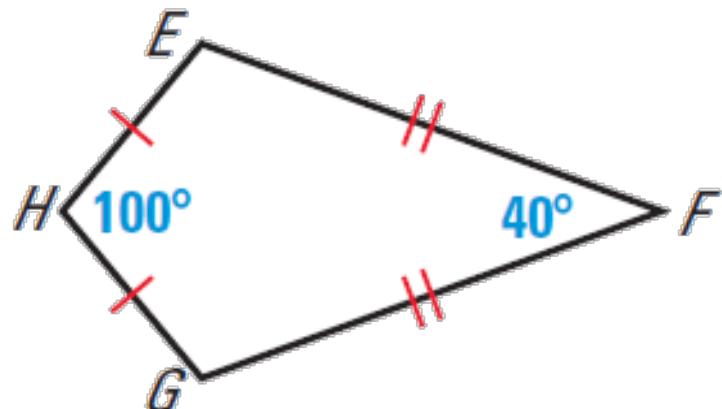
$$3x + 1 = 10$$



Ex 6: Find the measure of angle D .



Ex 7: Find the measure of angle G .



Ex 8 Use Theorems (including the Pythagorean Theorem) to find the side lengths of the kite. Write the lengths in simplest radical form.

