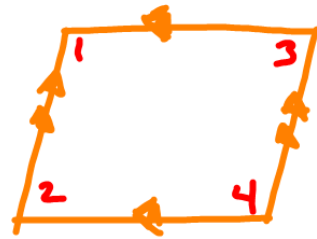


8.2 Properties of Parallelograms



Consec \angle Thm

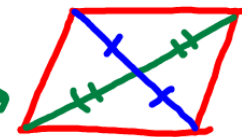
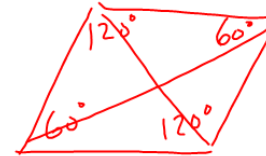
All Consec are adding to 180°

$$\angle 1 \hat{+} \angle 2 = 180$$

$$\angle 1 \hat{+} \angle 3 = 180$$

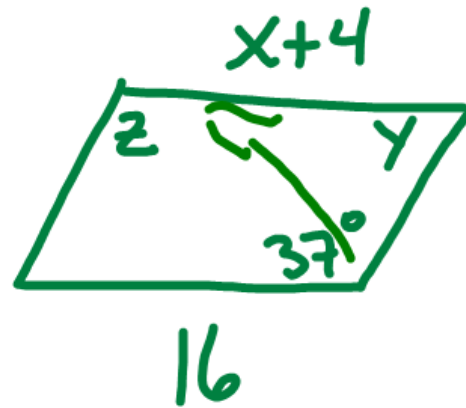
A Parallelogram has:

- 2 pair of parallel sides
- 4 sides (is a quadrilateral)
- Opposite sides are parallel $\hat{+}$ congruent
- Angles inside sum to 360°
- Opposite angles are congruent
- Diagonals bisect each other



Examples

Find x, y, z for the parallelogram.



$$\underline{x}$$

$$\begin{array}{r} x+4=16 \\ -4 \quad -4 \\ \hline \end{array}$$

$$\therefore x=12$$

$$\underline{y}$$

$$180 - 37 = \therefore$$

$$143^\circ$$

$$\underline{z}$$

$$37^\circ$$

opposite angles are \cong