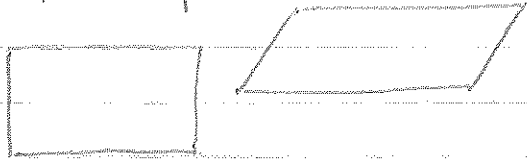


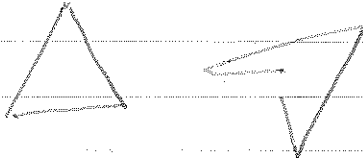
Quadrilaterals

Quadrilateral: 4 sided, closed polygon with 4 angles.

Example:



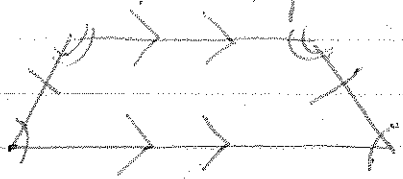
Non Examples:



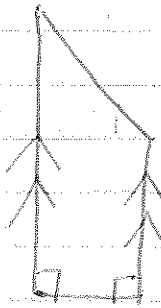
Interior angles have a sum of 360°

Quadrilateral Type	Opposite Sides Parallel	Opposite Sides Congruent	Opposite Angles Congruent	4 Right Angles	4 Congruent Sides
parallelogram 	✓	✓	✓		
rhombus 	✓	✓	✓		✓
rectangle 	✓	✓	✓	✓	
square 	✓	✓	✓	✓	✓

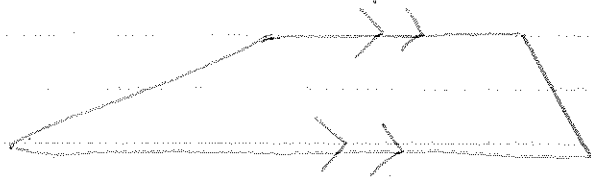
trapezoid: exactly one pair of parallel sides.



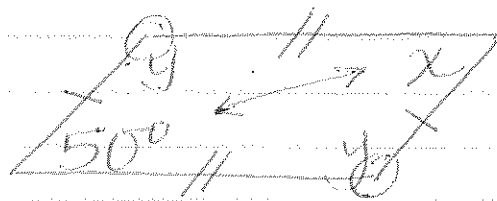
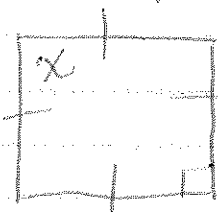
isosceles trapezoid



right trapezoid



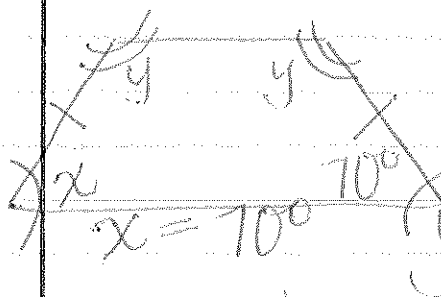
examples:



$$\begin{aligned} x &= 50^\circ \\ y &= 130^\circ \end{aligned}$$

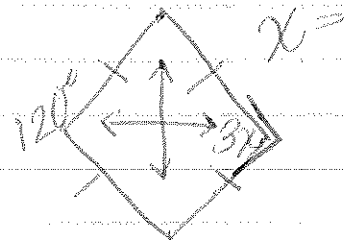
$$x = 90^\circ$$

$$\begin{array}{r} 360^\circ = 180^\circ + 2y \\ -100^\circ \quad -100^\circ \\ \hline 240^\circ = 2y \\ \hline 120^\circ = y \end{array}$$



$$x = 70^\circ$$

$$y = 110^\circ$$



$$\begin{array}{r} 360^\circ = 140^\circ + 2y \\ -140^\circ \quad -140^\circ \\ \hline 220^\circ = 2y \\ \hline 110^\circ = y \end{array}$$

$$\begin{array}{r} 120^\circ = 3x \\ \hline 40^\circ = x \end{array}$$

$$110^\circ = y$$