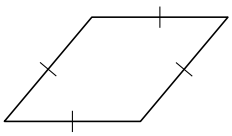
Properties of Rectangles, Rhombi, and Squares

Today I Can

1. Define and classify special types of parallelograms.
2. Use properties of diagonals of rhombi and rectangles.

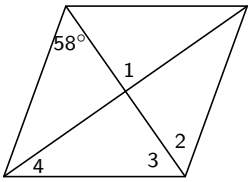
Rhombus

A parallelogram with all sides congruent.

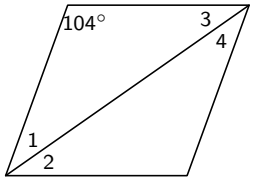


Example 1. Find the measure of each numbered angle in each rhombus.

(a)



(b)

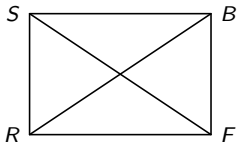


Rectangle

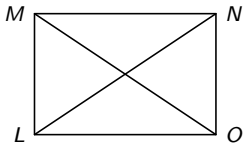
A parallelogram with 4 right angles.

Example 2. Find the length of the diagonal in each rectangle.

(a) $SF = 2x + 15$ and $RB = 5x - 12$

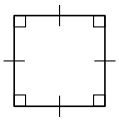


(b) $LN = 4x - 17$ and $MO = 2x + 13$



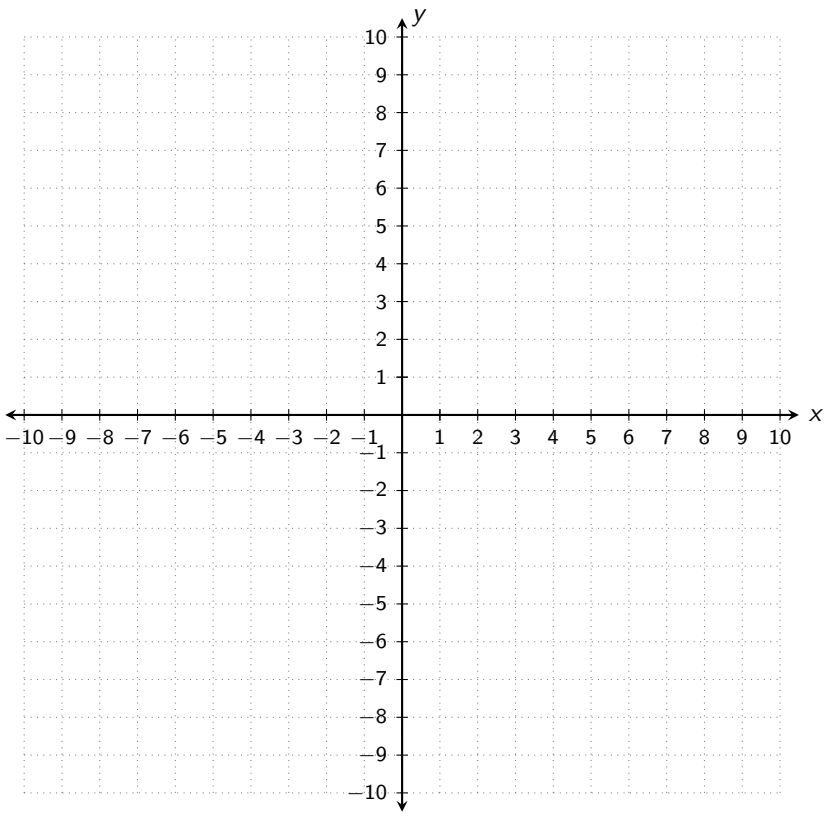
Square

A parallelogram that is *both* a rectangle and a rhombus.



Example 3. Classify each of the following as either a rectangle, rhombus, or square.

(a) $K(4, 8)$, $L(0, 9)$, $M(-2, 1)$, $N(2, 0)$



(b) $A(-5, 0)$, $B(2, -6)$, $C(8, 1)$, $D(1, 7)$