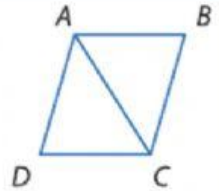


Check Your Understanding

Name: Class:

Example 1

ALGEBRA Quadrilateral $ABCD$ is a rhombus. Find each value or measure.



- If $m\angle BCD = 64$, find $m\angle BAC$.
- If $AB = 2x + 3$ and $BC = x + 7$, find CD .

1. Since $ABCD$ is a rhombus, AC bisects $\angle BCD$ and $\angle BAD$. Therefore,

$$m\angle DCA = \text{input} \ m\angle BCD$$

$$m\angle DCA = \text{input} (64^\circ) = \text{input}^\circ$$

Since a rhombus is a parallelogram, both pairs of sides are parallel. Alternate interior angles of parallel lines are , so,

$$\angle BAC \cong \angle DCA$$

$$\angle BAC = \angle \text{input}$$

$$\angle BAC = \text{input}^\circ$$

2. Since $ABCD$ is a rhombus, all four sides

$$\text{input}.$$

$$AB \cong BC$$

$$AB = \text{input}$$

$$2x + 3 = x + \text{input}$$

$$x + 3 = 7$$

$$x = \text{input}$$

$$AB = 2x + \text{input}$$

$$= 2(4) + \text{input}$$

$$= 8 + \text{input}$$

$$= \text{input}$$

$$CD \cong AB$$

$$CD = \text{input}$$

$$CD = \text{input}$$

