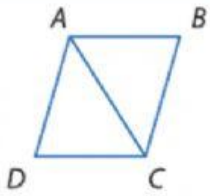
Check Your Understanding

Name: ..... Class: .....

Example 1 **ALGEBRA** Quadrilateral $ABCD$ is a rhombus. Find each value or measure.



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

1. Since ABCD is a rhombus, [ ] AC bisects ∠BCD and ∠BAD . Therefore,

m ∠DCA = [ ] m ∠BCD

m ∠DCA = [ ] (64°) = [ ]°

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

∠BAC ≅ ∠DCA
∠BAC = ∠[ ]
∠BAC = [ ]°

2. Since ABCD is a rhombus, all four sides [ ].

AB ≅ BC
AB = [ ]
$2x + 3 = x +$ [ ]
$x + 3 =$ 7
$x =$ [ ]
AB = $2x +$ [ ]
= 2 (4) + [ ]
= 8 + [ ]
= [ ]

CD ≅ AB
CD = [ ]
CD = [ ]