Geometry R – Mr. Bo
Unit 7 – Day 2 HW

Name:	
Date:	

Determine if the given statement is ALWAYS true, SOMETIMES true or NEVER true.
For statements that are SOMETIMES true, describe or explain situations in which the statement would be true.
1. The diagonals of a rhombus bisect each other
8. The diagonals of a square are perpendicular.

- 2. A rectangle is also a rhombus.
- 3. The diagonals of a rhombus are congruent.
- 4. The diagonals of a rectangle bisect each other.
- 5. The diagonals of a parallelogram are perpendicular.
- 6. The diagonals of a rectangle bisect the angles.
- 7. The opposite angles of a parallelogram are supplementary.

- 9. A parallelogram is also a rhombus.
- 10. The consecutive sides of a rhombus are congruent.
- 11. A square is also a rectangle.
- 12. The consecutive angles of a rectangle are congruent.
- 13. The diagonals of a rhombus are perpendicular.
- 14. A parallelogram with at least 1 right angle is a rectangle.

## 15-18. Find each value and provide a supporting reason.

15. Square PQRS.

a. PQ =



16. Rectangle ADCE with ED = 34.



17. Rectangle ADCE with  $m \angle BEC = 25$ .



18. Rhombus ADCE with  $m \angle AEC = 56$  and  $m \angle ABD = 17x + 5$ .

a. *x* =



b. *m∠BEC* =

a.  $m \angle AEB =$ 

c. *m∠DCE* =

## Complete a proof (2-column, flow, or paragraph)

19. Given: Rectangle BONK Prove:  $\Delta BOK \cong \Delta KNB$ 



20. Given: Rhombus ABCD Prove:  $\overline{CE} \cong \overline{AE}$ 

