Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples
INDUCTIVE *Reasoning*	
CONJECTURE	

Directions: Find the next five terms of the sequence. Then write a conjecture.

1. 38, 31, 24, 17, _____, _____, _____, _____, _____

Conjecture: _____

_____

2. 2, 5, 11, 23, _____, _____, _____, _____, _____

Conjecture: _____

_____

3. 1, 4, 9, 16, _____, _____, _____, _____, _____

Conjecture: _____

_____

4. A, D, G, J, _____, _____, _____, _____, _____

Conjecture: _____

_____

5. 7:30, 7:55, 8:20, _____, _____, _____, _____, _____

Conjecture: _____

_____

6. 3, 1, 4, 1, 5, _____, _____, _____, _____, _____

Conjecture: _____

_____

COUNTEREXAMPLE

Directions: Determine whether the conjecture is true or false. If false, provide a counterexample.

7. The sum of any two consecutive integers is always odd.

8. The product of two numbers is always larger than either number.

9. The product of two perfect squares is always a perfect square.

10. If the area of a rectangle is 6 m^2, then the dimensions must be 2 meters by 3 meters.

11. Dividing by 2 always results in a number less than the original number.

12. Vertical angles are never complementary angles.

13. If $a \cdot b = 0$, then either $a = 0$ or $b = 0$.

14. Two angles supplementary to the same angle must be congruent.

15. All state names have at least two syllables.

16. Squaring a number and adding one will always result in an even number.

Write your own conjectures! Then trade with your partner and determine if the conjecture is true or false. If false, provide a counterexample.

17. Conjecture: _____

_____

T/F: _____

18. Conjecture: _____

_____

T/F: _____