

**Chapter 2.1 – Inductive Reasoning – I Can Sheet**

Name: \_\_\_\_\_

Standard: LP.1

I can...

- State the definition of a conjecture
- Write geometric/algebraic conjectures using reasoning & patterns
- Use evidence and counterexamples to proof/disprove conjectures

\_\_\_\_\_ **Video notes**

\_\_\_\_\_ **worksheet 1**

\_\_\_\_\_ **worksheet 2**

\_\_\_\_\_ **Pre-MC**

\_\_\_\_\_ **ws #3**

\_\_\_\_\_ **resource video**

\_\_\_\_\_ **mastery check**

PRE-MC:

1. Write a conjecture that describes the pattern in the sequence, then use your conjecture to find the next item in the sequence.

10, 4, -2, -8, ...

2. Write a conjecture about the sum of two even numbers.
3. Make a conjecture about the geometric relationship: Point S is between R and T.
4. What is a counterexample?

## Geometry

5. Find a counterexample to show that the conjecture is false:

*If  $\angle ABC \cong \angle DBE$ , then  $\angle ABC$  and  $\angle DBE$  are vertical angles.*

6. Determine whether the statement is true or false. If false, give a counterexample.

If S, T, and U are collinear and  $ST= TU$ , then T is the midpoint of  $\overline{SU}$ .