## Geometry Inductive Reasoning YAY MATH!

Students will be able to complete the following problems after watching the video:

Are the following conjectures true or false? Give a counterexample for any false conjecture.

Given:  $\angle ABC$  and  $\angle CBD$  form a linear pair Conjecture:  $\angle ABC \cong \angle CBD$  Given:  $\overline{AB}$ ,  $\overline{BC}$ , and  $\overline{AC}$  are congruent. Conjecture: A, B, and C are collinear.

Given:  $\overline{AB} + \overline{BC} = \overline{AC}$ Conjecture:  $\overline{AB} = \overline{BC}$ 

Given:  $\angle 1$  is complementary to  $\angle 2$ , and  $\angle 1$  is complementary to  $\angle 3$ Conjecture:  $\angle 2 \cong \angle 3$ 

Statement: "All dolphins are mammals."

If-then statement:

Inverse:

Converse:

Contrapositive: