Geometry Section 2-1

Vocabulary:

Inductive Reasoning:

- The process of making observations, looking at patterns and coming up with an idea or conjecture based upon those observations and/or patterns that you think is true.

Once you come up with a conjecture, you will need to test that conjecture. Some conjectures become **theorems**---true statements that have been **proven** based upon postulates, definitions and previous theorems. Some conjectures stay at the conjecture level---too difficult to prove because of the infinite nature of the conjecture (for example **Goldbach's conjecture**).

- Be careful about conjectures or theories presented as if they are fact. Theories need to be tested over and over again to see if the **interpretation** of that theory is still correct or valid even though the theory is based upon facts that do not change.

When we test conjectures, we go through a process called finding a **counterexample----an example that shows or disproves a conjecture**. It only takes ONE counterexample to disprove a conjecture.

Counterexamples aren't all that bad. Thomas Edison when trying to invent the lightbulb went through a lot of attempts before he got it right. There seems to be a difference of opinions on how many attempts he actually did but we all agree on his endurance, applaud him, and today we continue to enjoy his efforts. https://www.youtube.com/watch?v=muCBy6Y4_ok

"Genius: one percent inspiration and 99 percent perspiration."
https://images.app.goo.gl/iJ1a6bEcBoyuhkwk9