Utah State Standards
1.1.a Write conditional statements, converses, and inverses, and determine the truth value of theses statements.
1.1.b Formulate conjectures using inductive reasoning.
1.1.c Prove a statement false by using a counterexample.

**Conjecture** - a conclusion based on inductive reasoning

**Inductive reasoning** - a conclusion based on a pattern or series of past events

Ex. Make a conjecture about “Pascal’s Triangle”. Explain your reasoning.

Ex. Make a conjecture about the next number based on the pattern. 1, 3, 6, 10, 15
Explain your reasoning. + 1 more to each #  \[ 21 \]

Ex. Make a conjecture about the next number based on the pattern. 2, 4, 12, 48, 240
Explain your reasoning. \( \times 1 \) more each time \[ 1440 \]

Ex. Make a conjecture about the next number based on the pattern. 1, 1, 2, 3, 5, 8, ...
Explain your reasoning. Add the previous 2 #s \[ 13 \]

Ex. Make a conjecture about the next number based on the pattern. 1, 4, 9, 16, ...
Explain your reasoning. Square the next # + next odd # \[ 25 \]