

1.2/1.3 Exploring the Validity of Conjectures – Looking for Counterexamples

Curricular Competencies:

I can think creatively with curiosity and wonder

I can apply flexible and strategic approaches to problems

I can reflect on math thinking

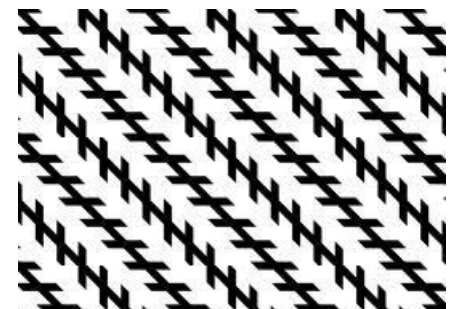
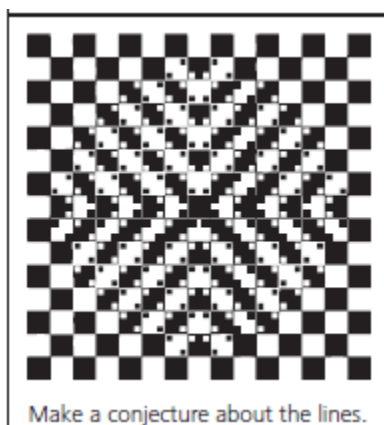
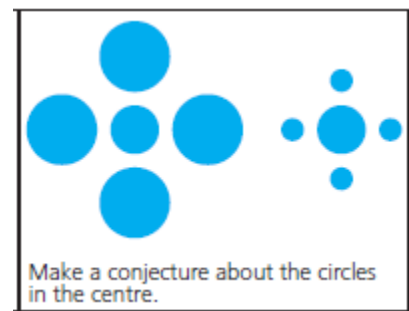
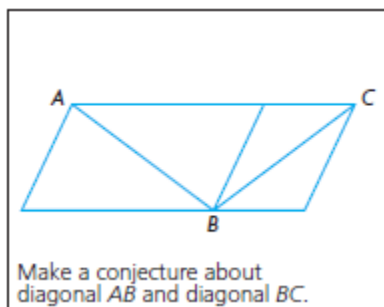
Conjectures can readily be made but to become valid: _____

It takes only one _____ to disprove a conjecture.

Counterexample _____

Once a conjecture is disproved it must be _____ to accommodate the new information.

Ex:



Conjecture: All but one of the vowels (a,e,i,o,u,and y) are used to spell numbers. Gather evidence to support or deny this conjecture.

Ex. Matt found an interesting numeric pattern:

$$1 * 8 + 1 = 9$$

$$12 * 8 + 2 = 98$$

$$123 * 8 + 3 = 987$$

$$1234 * 8 + 4 = 9876$$

Matt thinks that this pattern will continue. Search for a counterexample to Matt's conjecture.

Revise the conjecture to make it valid

Practice: pg 17 # 2,3

pg 22 # 1, 3, 5, 6, 9, 12, 14, 16, 17