

# 1.1 Making Conjectures: Inductive Reasoning

**Inductive reasoning** is where one notices *patterns*, and after looking at several examples, makes some sort of conclusion (inference).

**Conjecture:** A statement that is believed to be true – but is not yet proved

Ex. 1, 3, 5, 7, ....

Conjecture :

Ex.



Figure 1



figure 2



figure 3



Figure 4



figure 5

figure number	number of sides

Conjecture:

**Theorem:** A statement that has been proven

Conjecture  Theorem

**Example:**

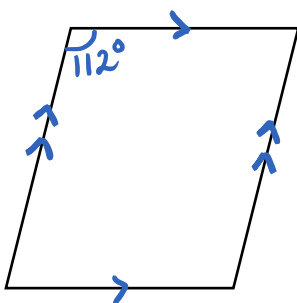
1    4    9    16    25    36    49    64    81    100

Conjecture 1:

Conjecture 2:

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**Example:**



**Example:**

**$1 + 7 = 8$**

**$3 + 19 = 22$**

**$45 + 9 = 54$**

Pg 13 # 6-9, 11-13, 16, 17, 19, 21