

Section 1.1: Inductive Reasoning – Making Conjectures**Example #1**

Examine the pattern:

$$10 + 01 = 11$$
$$13 + 31 = 44$$
$$24 + 42 = 66$$
$$39 + 93 = 132$$
$$78 + 87 = 165$$
$$89 + 98 = 187$$

How would you describe the pairs of numbers being added together?

How would you describe the numbers representing their sums?

Conjecture:

Find more examples:

Example #2

Analyze the following: $3 + 5 = 8$ $19 + 21 = 40$ $33 + 35 = 68$ $71 + 73 = 144$

How would you describe the pairs of numbers being added together?

What do all the sums have in common?

Conjecture:

Find more examples:

Example #3

Make a conjecture about the **product of two odd numbers**.

Create evidence to analyze (at least 4):

What do all the products have in common?

Conjecture:

Example #4

Examine the evidence in the table:

Multiple of 3	12	48	72	105		
Sum of its digits	3	12	9	6		

Conjecture:

Find more examples (input into the blanks spaces in the table)

Check your understanding: pg. 12 – 14, #2, 3, 6, 7, 8, 9, 11, 14