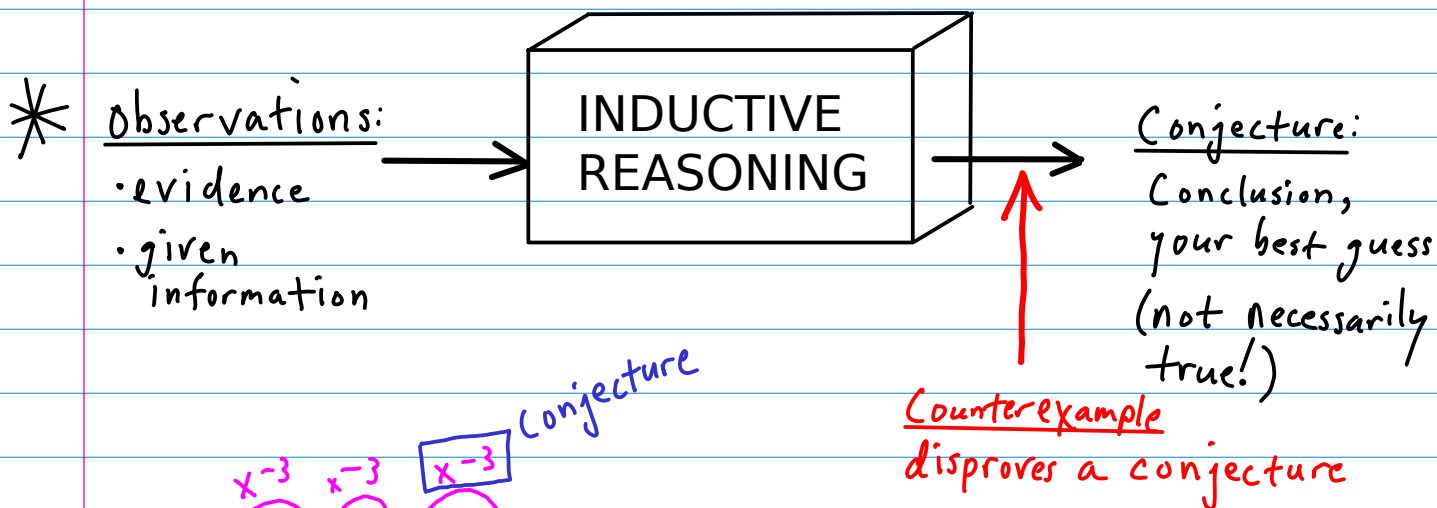


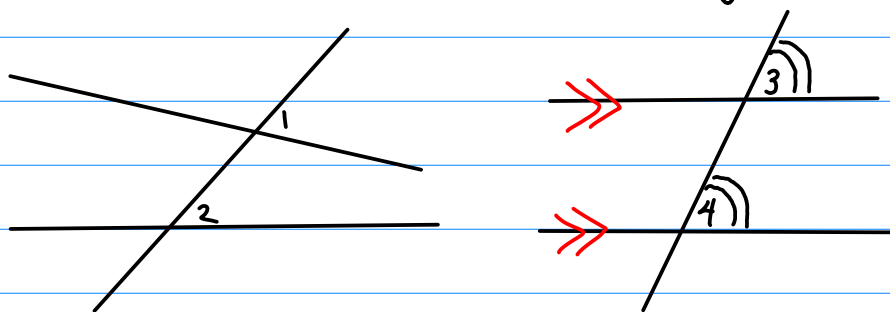
§2.1: Inductive Reasoning & Patterns



Ex: $3, -9, 27, -81$.

$x-3$ $x-3$ $x-3$ Conjecture

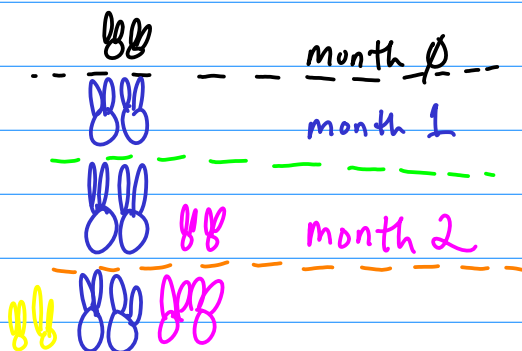
Ex: You notice that whenever 2 lines are crossed by a 3rd line that, if \cong \sphericalangle 's are made, the original lines are ||.



Conjecture: If 2 lines are crossed by another line & \cong \sphericalangle 's are formed, then the lines are ||.

Ex: Fibonacci Sequence

Month	# of pairs
0	1
1	1
2	2
3	3
4	5
5	8
6	13
	⋮

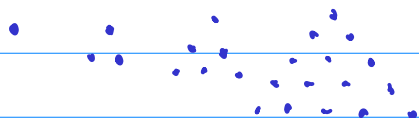


PATTERNS

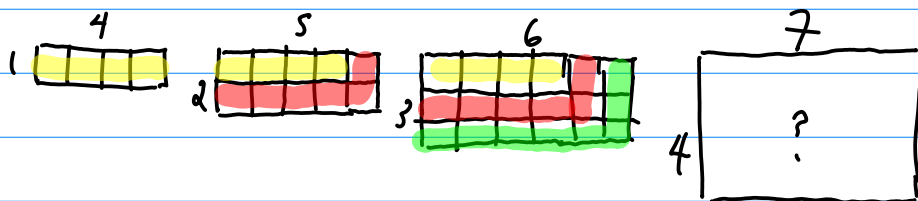
* Ex: 1, 3, 6, 10, 15

+2 +3 +4 +5

TRIANGULAR #s



Ex:



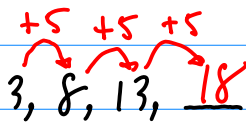
4 → 10 → 18 → 28

+6 +8 +10

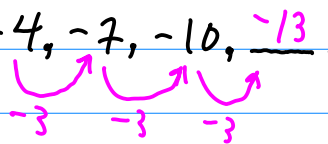
Sequences:

Arithmetic Series

$\sum x_i$: 3, 8, 13, 18.

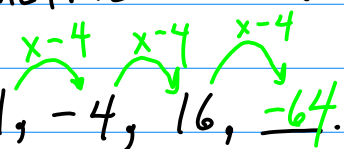


$\sum x_i$: -4, -7, -10, -13.



Geometric Series

$\sum x_i$: 1, -4, 16, -64.



$\sum x_i$: 1024, 512, 256, 128.

