

**Section E-1:  
Translating  
Expressions/  
Inductive Reasoning**

## Objectives:

- **Translate words and phrases from english into mathematical symbols.**
- **Use inductive reasoning to find patterns and determine the the next item in a sequence.**

## ADD

- Sum
- Increased by
- More than
- Plus
- Together
- Total

## SUBTRACTION

- Difference
- Decreased by
- Less than - (Backwards)
- Minus
- Less

## MULTIPLY

- Product
- Times
- Double ( $\times 2$ )
- Triple ( $\times 3$ )
- Twice a number ( $\times 2$ )  $2x$
- Squared ( $x^2$ )
- Cubed ( $x^3$ )

## DIVIDE

- Quotient
- Divide by

(Always put the number listed first on the top of the fraction)

Equals  $\rightarrow$  "is"

ex1] **Three increased by x is twenty.**

$$3 + x = 20$$

ex2] **A number less seven**

$$x - 7$$

ex3] **Five less than a number**

$$x - 5$$

ex4 | 3, 6, 9, 12, 15, 18, 21

<sup>+3</sup> <sup>+3</sup> <sup>+3</sup> <sup>+3</sup> <sup>+3</sup> <sup>+3</sup>

Rule: Add 3

ex5 | 5, 6, 12, 13, 26, 27, 54, 55

<sup>+1</sup> <sup>-2</sup> <sup>+1</sup> <sup>-2</sup> <sup>+1</sup> <sup>-2</sup> <sup>+1</sup>

Rule: Add 1, Multiply by 2

ex 6)

