ALGEBRA

Write your questions here!

Number Sentence:

Determine the truth values of the following;

Ex 1:   Ex 2:   Ex 3:

Algebraic Equation:

Ex 4:   Ex 5:   Ex 6:

Solution Set:

Ex 7:   Ex 8:
Verbally: Verbally:

Graphically: Graphically:

Set Notation: Set Notation:

Set Notation:

Ex 9:

Verbally:

Graphhically:

Set Notation:

Ex 10:

Verbally:

Graphically:

Set Notation:

YOU TRY:

Verbally:

Graphically:

Set Notation:

SMP #3

SUMMARY:

Now, summarize your notes here!

PRACTICE

Directions: Determine whether the following number sentences are true or false.

1) $(\sqrt{16})\left(\frac{1}{8}\right) = 0.5^2 + \frac{1}{4}$	2) $4(12+6) = 4(12) + 4(6)$	3) $\frac{8}{3} = 2.667$	4) $\pi = 3.14$

Directions: Circle all numbers that will make the equation TRUE.

5) $(x+2)^2 = 9$	6) $\frac{x-1}{x^2+1} = \frac{3}{17}$	7) $g^2 = -4$
-5 -1 0 1 5	1 3 4 17	-2 0 2 4
8) $g^2 - 5 = -4$	9) $6x - 1 = 11$	10) $\frac{x}{4} + 6 = 9$
-4 -1 0 1 4	-1 2 6 11	4 8 12 16 20

**Directions: Describe the solution set.**

11) $x = 5$ Verbally: Graphically: Set Notation:	12) $f + 1 \neq 4$ Verbally: Graphically: Set Notation:

13) $y^2 = 9$ Verbally: Graphically: Set Notation:	14) $q - 4 \leq 10$ Verbally: Graphically: Set Notation:
15) $2(x + 3) = 2x + 6$ Verbally: Graphically: Set Notation:	16) $u - 4 = u + 3$ Verbally: Graphically: Set Notation:

Use the graph to identify the independent and dependent variable. Fill in the table and answer the questions.

17) The population of a certain bacteria grows over time as shown in the graph below.
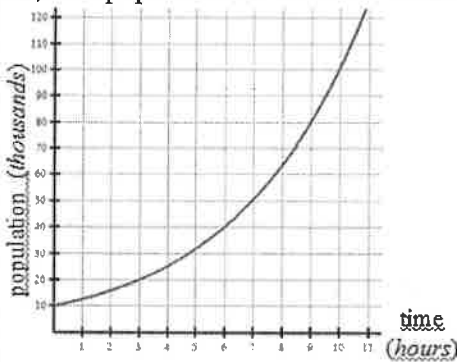
Independent Variable

____ = _____

Dependent Variable

____ = _____

___ (___)	___ (___)
3	
6	
	100
	120

a) What population did the bacteria start with?

b) How long does it take for the population of bacteria to double? Justify.

2.1 True/False Equations and Solution Sets

WRAP UP

Directions: Use the following equation to answer the following. $5 + 2x > 9$

1) What is one value of x that makes the equation true?	2) Describe the solution set graphically.	3) Describe the solution set with set notation.

Directions: Make an equation for each of the following situations by using one variable. The variable can be used more than once though. Ex: 3x + 4 = x is fine, but 3x +4 = y is not.

4) An equation that is always true.

5) An equation that is never true.

6) An equation that is only true when b = 2.

7) An equation that is true only when p = 2 or p = -2

8) Any side of a triangle must be less than the sum of the other two sides.

SMP #2

Suppose a triangle is made up of lengths 2 inches, 3 inches and L inches.
  a. Describe the solution set for all possible side lengths for L verbally.

  b. Describe the solution set for all possible side lengths for L graphically.
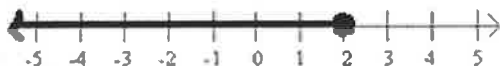
EXIT TICKET –

1) For what value of x is the following equation true?
$$\sqrt{x+1} = \sqrt{x} + 1$$

-9   -4   -1   0   1   4   9

2) Use the following graphical representation of a set of real numbers to answer the following:

  a) Describe this set of real numbers verbally:

  b) Describe this set of real numbers in set notation:

  c) Write an equation or inequality that has the set above as its solution set.