



### Section 1.3 - Solving Equations: Alg 2 Trig G Notes



Each of the words below can be replaced by a symbol in an equation. For example, the words "increased by" means to add. Rewrite each word in the appropriate column.

<del>times</del>	<del>plus</del>	<del>decreased by</del>	<del>increased by</del>	<del>more than</del>	<del>less than</del>
<del>less</del>	<del>square</del>	<del>cube</del>	<del>twice</del>	<del>tripled</del>	<del>sum</del>
<del>difference</del>	<del>minus</del>	<del>is</del>	<del>is less than</del>	<del>is greater than</del>	<del>add</del>
<del>divide</del>	<del>product</del>	<del>quotient</del>	<del>subtract</del>	<del>multiply</del>	

Words for Adding	Words for Subtracting	Words for Multiplying	Words for Dividing	Words for Raising to a Power	Words to make an Equation	Words to make an Inequality
plus	less	times	divide	square	is	less than
increased by	difference	product	quotient	cube		more than
sum	minus	twice				greater than
add	decreased by	tripled				
	subtract	multiply				

#### More vocab –

Expression: a mathematical statement with NO EQUAL SIGN ( $3x + x^2$ )

Equation: a mathematical sentence stating that 2 expressions are equal

Inequality: " " " " " one expression is greater / less than the other

#### WRITE AN ALGEBRAIC EXPRESSION TO REPRESENT EACH VERBAL EXPRESSION:

1. The sum of six times "a number" and 25

$$6x + 25$$

2. Four times the sum of a number and 3

$$4(x + 3)$$

~~$$4 \cdot x + 3$$~~

3. 7 less than fifteen times a number

$$15n - 7$$

4. The product of 3 and the sum of 11 and a number

$$3 \cdot (11 + x)$$

5. Four times the square of a number increased by five times the same number

$$4(x^2 + 5x)$$

WRITE AN ALGEBRAIC EQUATION TO REPRESENT EACH VERBAL EXPRESSION:

6. The sum of a number and 7 is 13.

$$x + 7 = 13$$

7. A number divided by 8 is equal to that number squared.

$$\frac{x}{8} = x^2$$

8. Seven times a number minus 2 is 19.

$$7n - 2 = 19$$

$$7(n - 2) = 19$$

9. 9 plus the product of a number and 4 is 60.

$$9 + (x \cdot 4) = 60$$

$$9 + 4x = 60$$

WRITE A VERBAL EXPRESSION TO REPRESENT EACH EQUATION:

10.  $x - 6 = 9$

a number minus 6 is 9

11.  $h^2 + 5h = 10$

the square of a number increased by 5 times the number is 10

12.  $3 + 3n = 2 - n$

3 plus 3 times a number is equal to 2 minus the number

