




Vocabulary

Name: _____

	Example	What does it mean?
Variable	x a	letter that represents an unknown #
Coefficient	$2x$ $3y$	# that is in front of a variable
Constant	4 -10 3	Plain, naked #
Expression	$4x - 3y$	no equal sign
Terms	$3y - 12x + 1$	separated by + and -
Like Terms	$4x + 3x$	have same variable
Monomial	$3z$	1 term
Binomial	$a + b$	2 terms
Trinomial	$3c - a + b$	3 terms
Polynomial	$3y + 10 - 4x + c$	4 OR MORE terms
Equation	$4x - 1 = 12$	has = sign

WORD WALL:

Addition (+):	Subtraction (-):	Multiplication (×):	Division (÷):
<ul style="list-style-type: none">• More• Sum → (and)• Increase• Plus• Total → (and)• Added to• Combined• Include	<ul style="list-style-type: none">• Less• Difference → (and)• Decrease• Minus• Diminished• Exclude• Remove• Take away• Reduced	<ul style="list-style-type: none">• Times• Product → (and)• Twice (*2)• Doubled (*2)• Triple (*3)• Of• Multiple	<ul style="list-style-type: none">• Divided By• Quotient → (and)• Separated• Split• Cut
Tricky: 			

Convert the following phrases and sentences to algebraic expressions:

1. "The sum of three and an unknown number."

$$3+x$$

3. "A number doubled reduced by five."

$$2x-5$$

5. "The product of three and an unknown number diminished by eight."

$$3x-8$$

7. "The quotient of a number tripled and six."

$$\frac{3x}{6}$$

9. "Ten subtracted from twice a number."

$$2x-10$$

11. 4 of a number increased by seven.

$$4a+7$$

13. Five add to a number squared.

$$5+x^2$$

2. "Three less than an unknown number."

$$x-3$$

4. "The number of five increased by three times a number."

$$5+3x$$

6. "Four subtracted from a number."

$$x-3$$

8. "Three times the sum of a number and four."

$$3(x+4)$$

10. "Twice the difference of 7 and a number."

$$2(7-x)$$

12. Twice the total of a number and three.

$$2(3+x)$$

14. Nine decreased by a number cubed.

$$9-x^3$$

15. Lori is 4 years younger than Shawn. Write an expression that represents Lori's age in relation to Shawn.

$$S - 4 \quad S = \text{shawn}$$

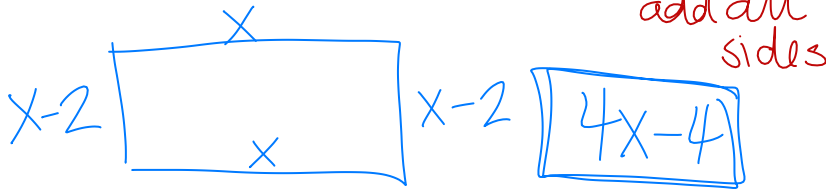
16. Jennifer is 1 year older than twice Zack's age. Write an expression that represents Jennifer's age in relation to Zack.

$$2z + 1 \quad z = \text{Zack}$$

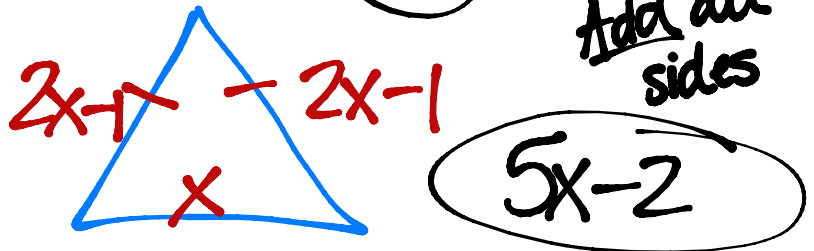
17. Jerry worked 2 hours less than four times as many hours as Katrina worked. Write an expression that represents the number of hours Jerry worked in relation to Katrina.

$$4k - 2 \quad k = \text{Katrina}$$

18. In a given rectangle the shorter side is 2 units less than the longer side. If we let the longer side be represented as the variable x , create an expression that represents the perimeter of the rectangle.



19. In an isosceles triangle (a triangle where two of the three sides called legs are equal), the legs are 1 unit less than twice the length of the base. If the length of the base of the triangle is represented by x , create an expression that represents the perimeter of the triangle.



20. Andrea is three times older than Eliza. Suzie is 4 years older than Eliza. If Eliza's age can be represented by x , create an expression that represents the combined age of all three girls.

$$\frac{\text{Andrea}}{3x} + \frac{\text{Eliza}}{x} + \frac{\text{Suzie}}{x+4} = 5x+4$$