Translating Algebraic Expressions

You will need to translate **between algebraic expressions and** words **to be successful in math.**

To translate **words into algebraic expressions, look for words that indicate the** action **that is taking** place.
operation

Translations: Fill in the appropriate words for each math operation.

- Half
- Plus
- Triple
- More Than
- Difference
- To the power of
- Sum
- Decreased
- Twice
- Less Than
- Raised to a power
- Take away
- Increased
- Cubed
- Minus
- Quotient
- Product
- Divide by
- Double
- Add
- Times
- Together
- Square

Addition- (6 words)

Subtraction- (5 words)

Division- (3 words)

Multiplication- (5 words)

Exponents- (4 words)

****Reversing the Order: FITT**

You Reverse the ## and the variable when you see:

F - Subtracted From

I - divided Into

T - more than **or** less than

T - added to

have no equal sign

Translate each verbal expression into an algebraic expression:

1.) The sum of a number and 10

$x + 10$

2.) The product of 9 and x squared

$9x^2$

3.) 9 less than g to the fourth power

$g^4 - 9$

4.) 8 increased by 4 times a number

$8 + 4x$

$4x + 8$ ← standard form

Sec 1.6 – Interpreting Written Expressions

Name:

WORD WALL:

Addition (+):	Subtraction (−):	Multiplication (×):	Division (÷) :
◦ More	◦ Less	◦ Times	◦ Divided By
◦ Sum → (and)	◦ Difference → (and)	◦ Product → (and)	◦ Quotient → (and)
◦ Increase	◦ Decrease	◦ Twice (*2)	◦ Separated
◦ Plus	◦ Minus	◦ Doubled (*2)	◦ Split
◦ Total → (and)	◦ Diminished	◦ Triple (*3)	◦ Cut
◦ Added to	◦ Exclude	◦ Of	
◦ Combined	◦ Remove	◦ Multiple	
◦ Include	◦ Take away		
	◦ Reduced		

Tricky: Than From To

Convert the following phrases and sentences to algebraic expressions:

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

   $x+3$

2. **"Three less than an unknown number."**

   $x-3$

3. **"A number doubled reduced by five."**

   $2x-5$

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

   $5+3x$

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

   $3x-8$

6. **"Four subtracted from a number."**

   $x-4$

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

   $\frac{3x}{6}$

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

   $3(x+4)$

9. **"Ten subtracted from twice a number."**

   $2x-10$

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

    $2(x-7)$

WORD WALL:

Addition (+):	Subtraction (−):	Multiplication (×):	Division (÷) :
◦ More	◦ Less	◦ Times	◦ Divided By
◦ Sum → (and)	◦ Difference → (and)	◦ Product → (and)	◦ Quotient → (and)
◦ Increase	◦ Decrease	◦ Twice (*2)	◦ Separated
◦ Plus	◦ Minus	◦ Doubled (*2)	◦ Split
◦ Total → (and)	◦ Diminished	◦ Triple (*3)	◦ Cut
◦ Added to	◦ Exclude	◦ Of	
◦ Combined	◦ Remove	◦ Multiple	
◦ Include	◦ Take away		
	◦ Reduced		

Tricky: Than From To

Convert the following phrases and sentences to algebraic expressions:

11. 4 of a number increased by seven.

$4x+7$

12. Twice the total of a number and three.

$2(x+3)$

13. Five add to a number squared.

x^2+5

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.

$L = S-4$

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

$J = 1+2z$

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.

$J = 4K-2$