

LESSON **1-1** Variables and Expressions

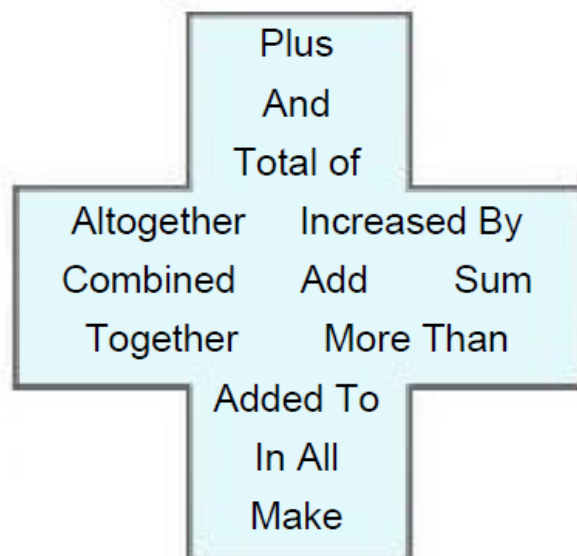
You need:  
 HW & Stamp sheet out  
 Spiral for notes  
 Pencil

I can... move between algebraic expressions and verbal expressions.

**Mission**  
**Addition**

Let's  
 See

**Addition**





See

## Subtraction

- ✓ Subtract
- ✓ Gave
- ✓ Take Away
- ✓ Decrease By
- ✓ Fewer
- ✓ Minus
- Shared
- ✓ Fewer Than
- ✓ Less Than
- Difference
- Less ✓

Separate 10s  
(smaller than)



Mystery  
Let's  
See  
Multiplication

## Multiplication

- Times
- Triple
- Double
- Product
- Multiplied By
- OF
- Increased By a Factor
- Twice
- Multiple



# Division



*separate into groups*

- Quotient of
- Divided By
- Divided Into
- Per
- Half
- Percent
- Ratio of
- Divisor
- Split Up



*over*

*apart out of*

*fraction*

Let's See



*equivalent*

**Equals** *will be same as*

Let's See

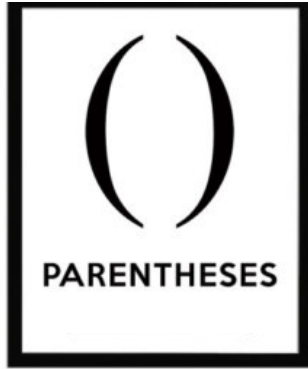
- Is
- Are
- Were
- Was

- Will Be
- Yields
- Sold For

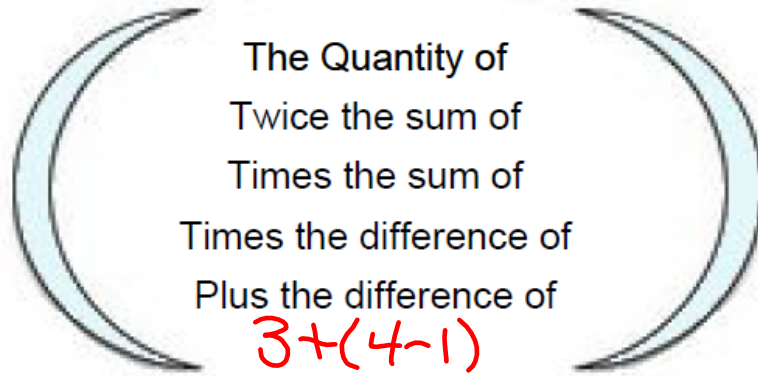
*total*

*even*

*outcome*



quantity of  
times the sum of  
**Parenthesis Words**  
~~X ( + )~~



Write a verbal expression for each algebraic expression.

1.  $\frac{1}{2}a + 6b$

Half of a  
number plus  
Six times  
another number.

2.  $16(u - 3)$

Sixteen times the  
difference of a  
number minus three.

You TRY!

White Boards

3.  $\frac{2}{3}r^4$

4.  $\frac{1}{8}(y - 2)$

5.  $8x^2(x - 3)$



Write an algebraic expression for each verbal expression.

9. the product of p and 6

6p

~~p6~~

10. one third of the sum of x and 4.

$$\frac{1}{3}(x+4)$$

11. 2 times the quantity of 5 less than b.

$$2(b-5)$$

You TRY!

White Boards

12. n cubed increased by 5  $n^3 + 5$

13. one minus the quotient of r and seven  $1 - \frac{r}{7}$

14. Two fifths of the square of a number j  $\frac{2}{5}j^2$

15. 5 less than a number c  $c - 5$

16. Four times the sum of g squared and b  $4(g^2 + b)$

17. Two fifths of the quantity 7 and 2 times x  $\frac{2}{5}(7 + 2x)$

## REAL WORLD!!

18. **Groceries** Mr. Bailey purchased some groceries that cost d dollars. He paid with a \$50 bill. Write an expression for the amount of change he will receive.

19. **Financial Literacy** Jocelyn makes  $x$  dollars per hour working at the grocery store and  $n$  dollars per hour babysitting. Write an expression that describes her earnings if she babysat for 25 hours and worked at the grocery store for 15 hours.

Write a story for the algebraic expression.

20.  $p$  stands for the number of peanuts that Lorenzo bought

$$20 - p$$

There were 20 peanuts in the store.  
He bought an unknown amount of them.

21.  $x$  stands for the number of text messages you sent in a month.

$$\underbrace{.15x}_{\substack{\text{\# of text messages} \\ \swarrow}} + \underbrace{30}$$

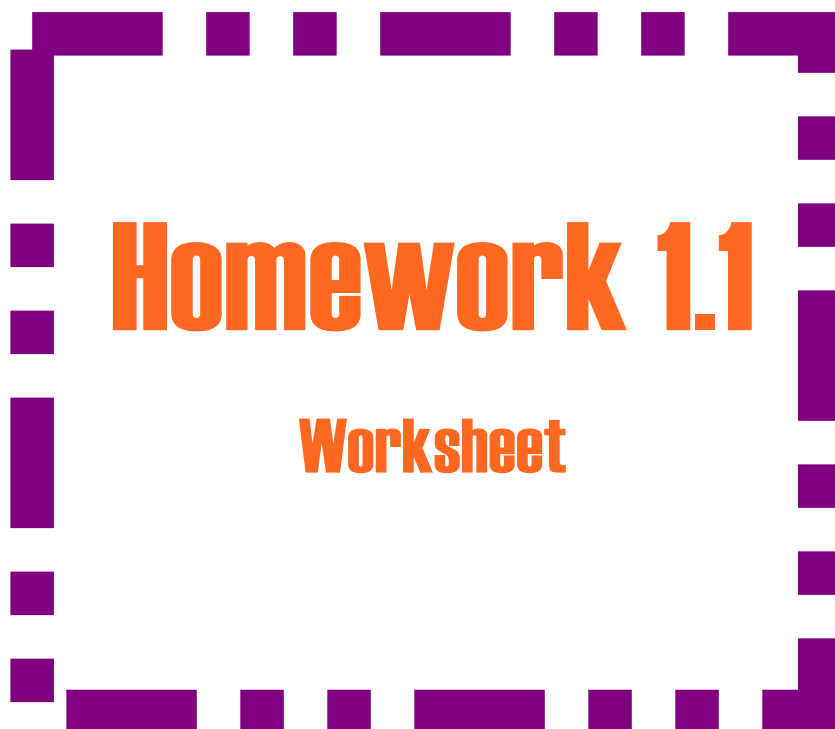
~~# of~~

Your phone plan charges .15 cents per text and 30.00 for data.

22.  $x$  stands for the price of adult tickets and  $y$  stands for the price of student tickets

$$2x + 3y$$





# Homework 1.1

Worksheet