

Please have your homework on your desk. Calculator? No

TSW simplify and translate algebraic expressions.

QRQ (Quick Review Questions)

Perform the indicated operation.

1 $(-4)^2 \div (23 - 6)^2$

$$(-4)^2 \div (17)^2$$

$$16 \div 289$$

$$\frac{16}{289}$$

2 $5^2 \div 5 - 1 + 18 \div 9$

$$25 \div 5 - 1 + 18 \div 9$$

$$5 - 1 + 2$$

$$4 + 2$$

$$6$$

3 Evaluate $-a + b^3 + c$ when $a = -9$, $b = -3$, and $c = -4$

$$-(-9) + (-3)^3 + (-4)$$

$$+(-9) - 27 + (-4)$$

$$9 - 27 - 4$$

$$\checkmark$$

$$-18 - 4$$

$$-22$$

4 Evaluate $-3|2a - 1| - b$ when $a = -2$ and $b = -1$

$$-3|2(-2) - 1| - (-1)$$

$$-3|-4 - 1| - (-1)$$

$$-3|-5| - (-1)$$

$$-3(5) + 1$$

$$-15 + 1 \rightarrow -14$$

5 Evaluate $-7x^2 - y^2$ when $x = -1$ and $y = -5$

$$-7(-1)^2 - (-5)^2$$

$$-7(1) - 25$$

$$-7 - 25$$

$$-32$$

44) HW

$$4^3 \div 8 - 1 + 5 \div 8$$

$$64 \div 8 - 1 + 5 \div 8$$

$$8 - 1 + \frac{5}{8}$$

$$7 + \frac{5}{8}$$

$$\frac{56}{8} + \frac{5}{8}$$

$$\frac{61}{8}$$

$$\frac{7^3}{1.8} = \frac{56}{8}$$

Ex 1 Simplify each algebraic expression

a.) $2x + 5x$

$$7x$$

b.) $(2x + 3y) + (6x + 7y)$

$$\begin{array}{c} \textcircled{2x} + \textcircled{3y} + \textcircled{6x} + \textcircled{7y} \\ 8x + 10y \end{array}$$

c.) $(8x + 4y - 3) + (2x - 6y + 10)$

$$\begin{array}{c} \textcircled{8x} + \textcircled{4y} - \textcircled{3} + \textcircled{2x} - \textcircled{6y} + \textcircled{10} \\ 10x - 2y + 7 \end{array}$$

$$d.) 14a^2 + 4(a^2 + b) + 7b$$

$$\boxed{14a^2 + 4a^2} + 4b + 7b$$

$$18a^2 + 11b$$

$$e.) -15m - 3(2 - 4a)$$

$$-15m - 6 + 12a$$

$$f.) \begin{array}{c} \overbrace{-2(x-4)} + \overbrace{5(x+1)} \\ \boxed{-2x} + \boxed{8} + \boxed{5x} + \boxed{5} \end{array}$$

$$3x + 13$$

$$g.) -9m(-)(5 - 4m) - 2$$

$$\boxed{-9m} \boxed{-5} + \boxed{4m} \boxed{-2}$$

$$-5m - 7$$

$$h.) (9x + 1) - (8x - 3)$$

$$\boxed{9x} + 1 \boxed{-8x} + 3$$

$$x + 4$$

Translating words into algebraic expressions.

Ex2 **Addition Words:** Add, Added to, the sum of, more than, increased by, the total of, plus

a.) add x to y

$$y+x$$

b.) 8 added to y

$$y+8$$

Flip flop

c.) The sum of a and b

$$a+b$$

d.) m more than n

$$n+m$$

e.) p increased by 10

$$p+10$$

f.) The total of a and 5

$$a+5$$

g.) 9 plus m

$$9+m$$

Ex 3 **Subtraction Words:** Subtract, subtract from, difference, between, less, less than, decreased by, diminished by, take away, reduced by, exceeds, minus

a.) Subtract x from y

$$y - x$$

b.) From x, subtract y

$$x - y$$

c.) The difference between x and y

$$x - y$$

d.) 10 less m

$$10 - m$$

e.) 10 less than m

$$m - 10$$

← flip flop

f.) p decreased by 11

$$p - 11$$

f.) 8 diminished by w

$$8 - w$$

g.) y take away z

$$y - z$$

h.) p reduced by 6

$$p - 6$$

i.) x exceeds y

$$x - y$$

j.) x minus y

$$x - y$$

Ex 4 **Multiplication Words:** Multiply, times, the product of, multiplied by, times as much, of

a.) 7 times y

$$7y$$

b.) The product of x and y

$$xy$$

c.) 5 multiplied by y

$$5y$$

d.) one-fifth of p

$$\frac{1}{5}p \text{ or } \frac{p}{5}$$

Multiplication by 2

e.) Twice x

$$2x$$

f.) x doubled

$$2x$$

Multiplication by 1/2

g.) Half of u

$$\frac{1}{2}u \text{ or } \frac{u}{2}$$

h.) one-half times m

$$\frac{1}{2}m \text{ or } \frac{m}{2}$$

Ex 5 **Division Words:** Divide, divides, divided by, the quotient of, the ratio of, equal amounts of, per

a.) divide x by 6

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

b.) 7 divides x

$$\frac{x}{7}$$

c.) 7 divided by x

$$\frac{7}{x}$$

d.) The quotient of y and 5

$$\frac{y}{5}$$

e.) The ratio of u to v

$$\frac{u}{v}$$

f.) 5 parts per 100 parts

$$\frac{5}{100}$$

g.) x separated into 4 equal parts

$$\frac{x}{4}$$

Words for **EQUALS**:

Is equal to, the same as, is, are, the result of,
will be, yields

Let's Complete this together:

Lesson 1.5 Handout Practice A #1-12 on front

Questions:

What does CLT stand for?

What property is used when we multiply through a parenthesis?

Give words for:

-Addition

-Subtraction

-Multiplication

-Division

Open Notes Quiz on Order of Operations and Evaluating Algebraic Expressions. Follow Quiz Procedures from the board.

After Quiz:

#21-30 on **Combine Like Terms Handout**

NEVER FORGET 3 TYPES OF
PEOPLE IN YOUR LIFE-

- 1- Who Helped You In Your Difficult Time
- 2- Who Left You In Your Difficult Times
- 3- Who Put You In Difficult Time