

Name: _____ Algebra 9 Unit 1 Lesson 2

Variables and Expressions plus PEMDAS

DO NOW ~ Tuesday 9/10

What do you remember about what a variable is? The lettersEx) x or y 

Classwork

P () Parenthesis

E x^2 ExponentsMD $\cdot$ and $\div$ AS $+$ and $-$

Simplify using the order of operations.

$$14 + 7 - 6 + 17$$

$$2 - 6 + 17$$

13

$$-3 - 4(-5 + 7) + 9$$

-2

$$9 - 5 \div (8 - 3) \times 2 + 6$$

13

$$\frac{3 \cdot (5 + 8) - 9^2}{4 + 3}$$

-6

$$\frac{-42}{7}$$

DO NOW ~ Wednesday 9/11

Simplify using the order of operations.

$$7 + 3 + 10 - (5 + 1)$$

14



Classwork

Variable

Letters - unknown value

Substitute then evaluate if $x=1$, $y=2$.

$$y \div 2 + x$$

$$(2) \div 2 + (1)$$

$$1 + 1$$

2

Substitute then evaluate if $a=10$, $b=4$.

$$a - 5 - b$$

$$(10) - 5 - (4)$$

1

Substitute then evaluate if $m=1$, $p=5$.

$$p^2 + m$$

$$(5)^2 + (1)$$

26

DO NOW ~ Thursday 9/12

Substitute then evaluate if $q=3$, $m=8$. 18

$6q + m - m$

$6(3) + (8) - (8)$



Classwork

Substitute then evaluate if $x=1$, $y=1$.

$(y+x) \div 2 + x$

$$(1+1) \div 2 + (1)$$

$$2$$

Substitute then evaluate.

$5y^2 + 3y$ for $y=2$

$$5(2)^2 + 3(2)$$

$$26$$

Substitute then evaluate.

 12

$3c^2 - 5c$ for $c=3$

$$3(3)^2 - 5(3)$$

To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator
- 3) Have last night's homework out
- 4) Complete the do now



DO NOW ~ Friday 9/13

Substitute then evaluate.

 $2x - 3$ for $x = 4$

$$2(4) - 3$$

5



Classwork

Substitute then evaluate.

 $n \div 3 + n$ for $n = 6$

$$(6) \div 3 + (6)$$

8

 $5y - 1$ for $y = 3$

$$5(3) - 1$$

14

 $x - \frac{y}{4} + 20z$ for $x=9, y=4, z=5$

$$(9) - \frac{(4)}{4} + 20(5)$$

108

 $9 + 3p - 5t + 3$ for $p=2, t=1$

$$9 + 3(2) - 5(1)$$

13

Mrs. Ferreri's Station ~ Evaluating Expressions*Substitute then evaluate.*

1) $16 - x$ at $x = 5$

2) $3n$ at $n = 11$

3) p^3 at $p = 2$

4) $r + 4$ at $r = 13$

5) $\frac{m}{2} + 1$ at $m = 6$

6) $c - 9$ at $c = 16$

7) b^2 at $b = 4$

8) $\frac{y}{5}$ at $y = 15$

9) $21 - z$ at $z = 10$

10) $\frac{q}{3} + 4$ at $q = 3$

1) $xy - 5$ at $x = 5, y = 2$

2) $r + s^2$ at $r = 4, s = 1$

3) $\frac{c^2}{d}$ at $c = 6, d = 3$

4) $m - 3n$ at $m = 8, n = 2$

Continue onto the next page.

1) $m - (n - m)$; use $m = 1$, and $n = 1$

2) $x + y - y$; use $x = 5$, and $y = 1$

3) $6x + 4 + z$; use $x = 4$, and $z = 5$

4) $(x^2)(y - 2)$; use $x = 4$, and $y = 4$

5) $\frac{(6+r)(q+r)}{4}$; use $q = 4$, and $r = 4$

6) $\left(x + \frac{y}{6}\right)(x + z)$; use $x = 3$, $y = 6$, and $z = 5$

9) $30 - (6 + mn) + m$; use $m = 3$, and $n = 5$

10) $x + (y - 3)^2 + x + x$; use $x = 2$, and $y = 3$

Evaluate if $x = 6$, $y = 8$, and $z = 3$.

$$\frac{y + xz}{2}$$

Evaluate if $x = 6$, $y = 8$, and $z = 3$.

$$5x - (y + 2z)$$

Evaluate if $x = 6$, $y = 8$, and $z = 3$.

$$x^2 + y^2 - 10z$$

Continue onto the next page.

Evaluate if $x = 6$, $y = 8$, and $z = 3$.

$$\frac{3y + x^2}{z}$$

Evaluate if $x = 6$, $y = 8$, and $z = 3$.

$$5z + (y - x)$$

$$2(7a - b)$$

$$39. (a^3 + b^2) \div a$$

$$40. 3b \div (2a - 1) + b$$

$$1. \frac{5a + 2}{b}$$

$$42. \frac{3(b - 2)}{4(a + 1)}$$

$$43. 9b + a^4 \div 8$$

Computer Station ~ Google Classroom and Delta Math

1) Log into the computer and go to Google Classroom. Join the Algebra 9 class by entering the code: **jeaod6g**

2) Click on the Delta Math link. Click "Create Account" and then "Student" by entering the teacher code: **654562**

Complete the assignment on Delta Math.

Mrs. Kennedy's Station ~ Graphing Calculator Practice (PEMDAS)

Type in the following expressions into your graphing calculator and write the answer down.

1) $6 + 42 \div 2 - 15$

2) $36 - 10 \times 2 \div 5 - 11$

3) $25 \times 2 - 42 \div 6 + 18$

4) $3 + 32 \div 8 - 9$

5) $8 + 9 - 2 \times 3$

6) $4 - 6 \times 2 \div 2 + 2$

7) $12 \div 2 \times 6 + 4 - 3$

8) $63 \div 7 \times 3 - 4$

9) $4 + 8 - 5 \times 6$

10) $5 + 36 \div 2 \times 3 - 4$

$$\frac{27}{2 + 3 + 4} + 3$$

$$\frac{45}{8(5 - 4) - 3}$$

$$8 \times \frac{15}{5} - (5 + 9)$$

$$2 \times 7 - \frac{10}{9 - 4}$$

$$(10 + 2 - 2) \times 6 - 1$$

$$\frac{8}{5 - 1} \times (3 + 6) \times 3$$

$$\frac{49}{7} \times \frac{60}{2 \times 5}$$

$$(2 + 6 \times 2 + 2 - 4) \times 2$$

Continue onto the next page.

1) $6 + 5^2 + 1^2$

2) $\frac{6}{1+1} + 5 + 2$

3) $\frac{12}{5+2+3-4}$

4) $\frac{7 \cdot 3 - 3}{1+5}$

5) $\frac{7-6+2+7}{2}$

6) $5 \cdot \frac{12}{2} + \frac{6}{3}$

7) $(2-1) \cdot 2 - \frac{4}{4}$

8) $\frac{(9-3) \cdot 2}{4}$

9) $\frac{6}{3} + \frac{16}{1+3}$

10) $\frac{2 \cdot 2}{1+5-2}$

11) $\frac{2+10}{2 \cdot 3-4}$

12) $4 \cdot 3 - \left(\frac{4}{4} + 4\right)$

13) $6 + 1 - (4-3) \cdot 4$

14) $\left(\frac{10}{4+1} - 1\right) \cdot 6$

15) $5 - 3 - 1 + 3^3$

16) $(5+3) \cdot 4 - (3-1)$

17) $\frac{(1+11) \cdot 2}{6} \cdot 2$

18) $(6-6) \cdot 4 \cdot 4 + 6$

19) $\frac{4-3+1}{4-2}$

20) $2 + 6^2 + 6 + 6$

Name: _____ Unit 1 Lesson 1 (Baseline Data)

Solve the following questions using a proportion. Be sure to show all work including units.

$$\frac{10}{k} = \frac{8}{4}$$

$$\frac{4}{3} = \frac{8}{x}$$

An ice cream factory makes 250 quarts of ice cream in 10 hours. How many quarts could be made in 48 hours? What was that rate per day?

The bakers at Healthy Bakery can make 240 bagels in 5 hours. How many bagels can they bake in 23 hours? What was that rate per hour?

A jet travels 450 miles in 5 hours. At this rate, how far could the jet fly in 8 hours? What is the rate of speed of the jet?

Continue onto the back.

If a car is traveling at 65 miles per hour, then how far does it travel in 2 hours?

Molly bought two heads of cabbage for \$1.80. How many heads of cabbage can Willie buy if he has \$28.80?

Jenny was planning a trip to the United Arab Emirates. Before going, she did some research and learned that the exchange rate is 4 Dirhams for every \$1. How many Dirhams would she get if she exchanged \$5?

If you can buy four bulbs of elephant garlic for \$8 then how many can you buy with \$32?

Homework ~ Tuesday 9/10

Simplify.

$$6 + 1 - (4 - 3) \cdot 4$$

$$4 \cdot 3 - \left(\frac{4}{4} + 4 \right)$$

$$\frac{27}{2 + 3 + 4} + 3$$

$$\frac{7 \cdot 3 - 3}{1 + 5}$$

Homework ~ Wednesday 9/11	
<i>Substitute then evaluate for all problems below.</i> $8 + 7f - 3f \quad \text{use } f = -4$	$\frac{-8}{c} - 4 \quad \text{use } c = -2$
$\frac{8}{n} + 3m \text{ for } n = 2 \text{ and } m = 5$	$\overline{5a - 3b + 5} \text{ for } a = 4 \text{ and } b = 3$

Homework ~ Thursday 9/12

Substitute then evaluate for all problems below.

$$p - r - \frac{r}{2}; \text{ use } p = 4, \text{ and } r = 2$$

$$mp - \frac{n}{3}; \text{ use } m = 3, n = 3, \text{ and } p = 3$$

$$3 + m + q^2; \text{ use } m = 3, \text{ and } q = 6$$

$$x + y^2 + y; \text{ use } x = 3, \text{ and } y = 1$$