Bellwork

Alg 2A Tuesday, January 24, 2017

Evaluate each for

$$w = -8$$

$$w = -8$$
  $x = -6$   $y = 12$   $z = 4$ 

$$z = 4$$

1. 
$$-x - 2z^2 + wy$$

2. 
$$w^2 - x^2$$

2. 
$$w^2 - xz$$
 3.  $-2|w - y| - |x|$ 

Simplify each.

4. 
$$9m^2n + 3mn^2 - 5m^2n + 8m^2n^2 - mn^2 - 11m^2n^2 + m^2n$$

5. 
$$5w(3w+2) - 8w - 4(6w^2 - 7w + 3) + 7w - 10$$

- 6. The number of pages Elaine reads varies directly with the amount of time she spends reading. It takes her 20 minutes to read 18 pages.
- a) State the variation constant, including units.
- b) Write a direct variation equation. Define your variables.
- c) Find the number of minutes it will take her to read 100 pages. Round to the nearest hundredth as needed.
- 7. Is each table an example of Direct Variation? If the table represents Direct Variation write a variation equation and find the value of x when y = 432.

	x	y
	4.8	12
a)	-8	-20
	36	90
	50	125

	x	y
	8	-92
b)	15	-172.5
	34.5	-3
	40	-460

8. Without actually solving the system of equations state the number of solutions: One, None, or Many

a) 
$$y = 4x - 3$$

b) 
$$y = -2x + 5$$

c) 
$$y = 3x - 10$$

d) 
$$y = 3$$

$$12x - 3y = 9$$

$$4x - 8y = 24$$

$$6x - 2y = 12$$

$$6x - 2y = 18$$

Bellwork

Evaluate each for w = -8

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Answers

$$w = -8$$

$$x = -6$$
  $y = 12$ 

$$z = 4$$

1. 
$$-x - 2z^2 + wy$$

$$= -(-6) - 2(4)^2 + (-6)(12)$$

2. 
$$w^2 - xz$$

3. 
$$-2|w-y|-|x|$$

$$= -(-6) - 2(4)^{2} + (-5)(12)$$

$$= 6 - 2(16) - 96 = (-122)$$

1. 
$$-x - 2z^{2} + wy$$
 2.  $w^{2} - xz$  3.  $-2|w - y| - |x|$ 
 $-(-6) - 2(4)^{2} + (-5)(12)$   $(-5)^{2} - (-6)(4)$ 
 $= (6 - 2(16) - 96) = (-122) = (64 + 24)$ 

Simplify each.

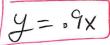
4.  $9m^{2}n + 3mn^{2} - 5m^{2}n + 8m^{2}n^{2} - mn^{2} - 11m^{2}n^{2} + m^{2}n$ 
 $= -46$ 

4. 
$$9m^2n + 3mn^2 - 5m^2n + 8m^2n^2 - mn^2 - 11m^2n^2 + m^2n^2$$

5. 
$$5w(3w+2) - 8w - 4(6w^2 - 7w + 3) + 7w - 10$$

- 6. The number of pages Elaine reads varies directly with the amount of time she spends reading. It takes her 20 minutes to read 18 pages. Y = # pages read
- a) State the variation constant, including units.

b) Write a direct variation equation. Define your variables.



c) Find the number of minutes it will take her to read 100 pages. Round to the nearest hundredth as needed.

$$\frac{100 = .9x}{.9}$$
 III.II.

use a proportion:
$$\frac{20 \, \text{min}}{18 \, \text{pg}} = \frac{?}{100 \, \text{pg}}$$

x = amnt of time

7. Is each table an example of Direct Variation? If the table represents Direct Variaton write a variation equation and find the value of x when y = .432.

		r	- I
	$\boldsymbol{x}$	y	X
	4.8	12	2.5
a)	-8	-20	2.5
	36	90	2.5
	50	125	2.5

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	x	y	×
	8	-92	-11.5
b)	15	-172.5	-11.5
	34.5	-3	09
	40	-460	

			. Y
	x	y	×
	-24	3.6	15
c)	-10	1.5	15
	18	-2.7	15
	32	-4.8	15

Yes,	Direct Vav
y =	15 X
432	$=15\chi$ $\chi = -2880$

$$y = 2.5^{\circ} X$$
  $X = 172.8$ 

8. Without actually solving the system of equations state the number of solutions: One, None, or Many

a) 
$$y = 4x - 3$$

b) 
$$y = -2x + 5$$

c) 
$$y = 3x - 10$$

d) 
$$y = 3$$
 —Horizontal Line

$$\zeta_{12x-3y=9}^{12x-3y=9}$$

$$4x - 8y = 24$$

$$y = \underline{24 - 4}y$$

$$-8$$

$$y = \frac{12-6x}{-2}$$

6x - 2y = 18 - Nor Hurizontal