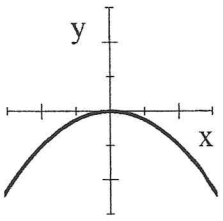
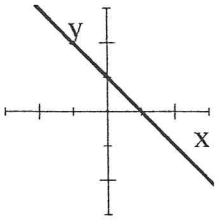
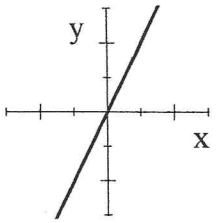
Algebra 2 Bellwork Monday, January 5, 2015

1. Does each graph represent Direct Variation?

a)_____ b)_____ c)_____







2. Is each table below an example of direct variation?

If yes, state the variation constant and write a direct variation equation.

a)Direct Variation?_____

X	Y
–6	7.5
4	–5
8	–10
14	–17.5

If Yes, $k =$ _____

If Yes, equation is:

b)Direct Variation?_____

X	Y
–3	–7.2
5	12
8	19.2
18	7.5

If Yes, $k =$ _____

If Yes, equation is:

c)Direct Variation?_____

X	Y
2	15
4	20
6	25
8	30

If Yes, $k =$ _____

If Yes, equation is:

3. This table demonstrates a Direct Variation relationship. Find the values of X and Y.

x	y
–5	–13.5
2	5.4
X	35.1
21	56.7
33	Y

X = _____ Y = _____

4. The number of gallons of paint used varies directly with the number of feet of fencing being painted. 6 gallons of paint was used to paint 111 feet of fencing.

a) State the variation constant, include units. _____

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

EQ: Variables:

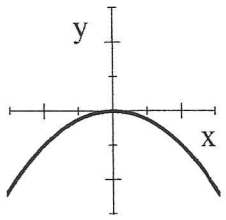
c) How many gallons of paint will be needed to paint 250 feet of fencing? _____

ANSWERS

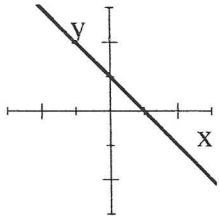
Algebra 2 Bellwork Monday, January 5, 2015

1. Does each graph represent Direct Variation?

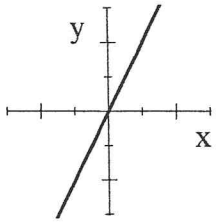
a) NO



b) NO



c) Yes



2. Is each table below an example of direct variation?
If yes, state the variation constant and write a direct variation equation.

a) Direct Variation? Yes

X	Y	$\frac{Y}{X}$
−6	7.5	−1.25
4	−5	−1.25
8	−10	−1.25
14	−17.5	−1.25

If Yes, k = −1.25

If Yes, equation is: $y = -1.25x$

b) Direct Variation? NO

X	Y	$\frac{Y}{X}$
−3	−7.2	2.4
5	12	2.4
8	19.2	2.4
18	7.5	.42

If Yes, k = _____

If Yes, equation is:

c) Direct Variation? NO

X	Y	$\frac{Y}{X}$
2	15	7.5
4	20	4
6	25	
8	30	

If Yes, k = _____

If Yes, equation is:

3. This table demonstrates a Direct Variation relationship. Find the values of X and Y.

x	y
−5	−13.5
2	5.4
X	35.1
21	56.7
33	Y

X = 13

$35.1 = 2.7x$

Y = 89.1

$y = 2.7(33)$

$k = 2.7$

$y = 2.7x$

4. The number of gallons (y) of paint used varies directly with the number of feet (x) of fencing being painted. 6 gallons of paint was used to paint 111 feet of fencing. y varies directly with x

a) State the variation constant, include units. .054 gal/ft $k = \frac{y}{x} = \frac{6\text{ gal}}{111\text{ ft}} = .054$

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

EQ: $y = .054x$

Variables:
y = # gallons of paint
x = # ft of fencing

c) How many gallons of paint will be needed to paint 250 feet of fencing? ≈ 13.5 gallons

$y = .054(250)$

or use a proportion $\frac{6\text{ gal}}{111\text{ ft}} = \frac{Y}{250\text{ ft}}$