Name: Key

Algebra 2
Chapter 2 Practice Test – Part 1

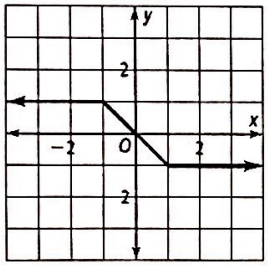
1. Tell whether the relation is a function (circle yes or no). State the domain and range.

x	y
–3	–2
–1	0
0	1
2	2
3	3

a. Function; D {-3, -1, 0, 2, 3}; R {-2, 0, 1, 2, 3}
b. Function; D {-2, 0, 1, 2, 3}; R {-3, -1, 0, 2, 3}
c. Not a Function; D {-3, -1, 0, 2, 3}; R {-2, 0, 1, 2, 3}
d. Not a Function; D {-2, 0, 1, 2, 3}; R {-3, -1, 0, 2, 3}

1. A

2. Tell whether the relation is a function. Explain why.



2. Function.
Pass VLT

3. Evaluate the function for the given value of x.

$f(x) = x^2 + 5x + 1$

$f(-4) =$ $(-4)^2+5(-4)+1$

$16-20+1$

$-4+1$

3. -3

4. y varies directly as x. If y = 4 when $x=\frac{1}{2}$, find x when y=16.

$\frac{4}{1/2} = \frac{16}{x}$ $4x=8$ $x=2$

4. x = 2

5. Find the constant of variation if y equals 5 when x if 4.

$y=kx$ $5=k(4)$ $k=5/4$

5. k = 1.25

6. Find an equation of the line with slope = $\frac{1}{2}$; y-int = 2. Leave in standard form.

$y=mx+b$ $-2\left(-\frac{1}{2}x+y=2\right)-2$

$y=\frac{1}{2}x+2$ $x-2y=-4$

$Ax+By=C$ x is positive No fractions

6. $x-2y=-4$

7. Find an equation of the line through the points (3, 4), (-1, 0). Leave in slope intercept form.

Find Slope

$m=\frac{0-4}{-1-3}=\frac{-4}{-4}=1$

$y-4=1(x-3)$

$y-4=x-3$

7. $y=x+1$

8. Write an equation of the line that passes through (-2, 3) and is <u>perpendicular</u> to the line y=2x+1. Leave answer in <u>point slope form.</u>

$m=2$

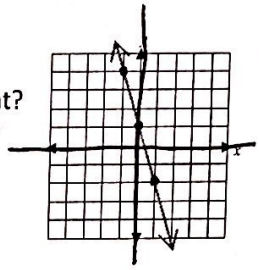
$\perp m=-1/2$

9. The graph of the line x=2 has a slope of:

a. 2 b. $\frac{1}{2}$ c. 0 d. Undefined

10. What is the slope and y-intercept of the equation graphed at right?

$y=-3x+1$



11. Describe the correlation given a correlation coefficient of r = - 0.3

a. Strong, negative, linear
b. Weak, negative, linear
c. Strong, positive, linear
d. Weak, positive, linear

8. $y-3=-\frac{1}{2}(x+2)$

9. D

$m=-3$

10. $b=(0,1)$

11. B