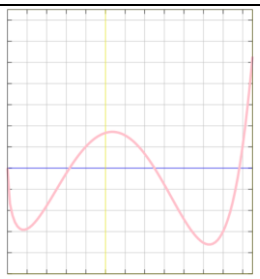
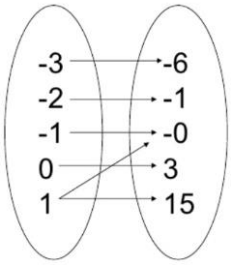
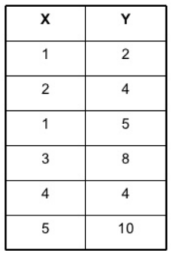
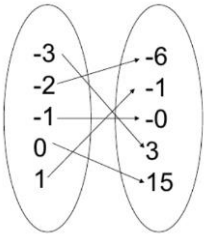
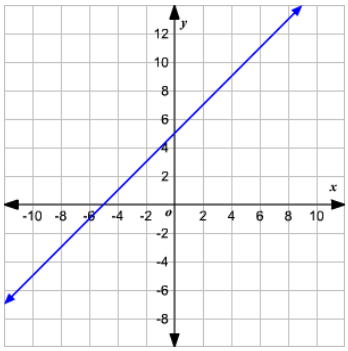
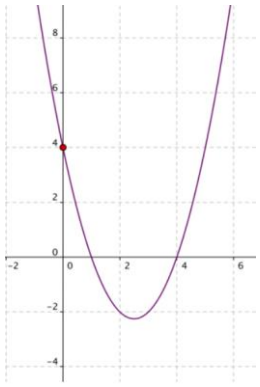
Algebra 1 – Unit 2A Assessment Practice Name _____ Date _____ Period ___

Part A: Identifying Functions [F-IF.A.1]

	State if the relations below are functions or not. **Explain** why or why not.			
1				

Part B: Graphing Functions [F-IF.B.4]

Answer the questions completely, using the graph below.		
f(x) 	2.	**State** the x-intercept and y-intercept as ordered pairs.
	3.	**Circle** one: The slope is POSITIVE / NEGATIVE
	4.	**State** the interval that represents the x-values for which the function *f(x)* is *negative*.
Answer the questions completely, using the graph below.		
g(x) 	5.	**State** the x-intercept(s) and y-intercept as ordered pairs.
	6.	**Circle** one: The graph is INCREASING / DECREASING from 2.3 to infinity
	7.	**State** the interval(s) that represents the x-values for which the function *g(x)* is *positive*.

Part C: Interpreting Functions [F-IF.A.2]

	Answer the questions completely.
8.	A function relates the input x, total miles a car has been driven, to the output $v(x)$, the value of the car in dollars. **Explain** the meaning of $v(105000) = 5500$.
9.	**State** an appropriate *domain* for the function *v(x)*.

Part D: Essential Question

	Write a Big Idea response for the Essential Question. **Include** vocabulary terms you have learned. Your responses will be evaluated using the Big Ideas Scoring Guide.
10.	**Explain** what you learn about a function from the function's *key aspects*.

Part E: Evaluating Functions [F-IF.A.2]

	Answer the questions completely.		
11.	**Evaluate** the function $y = 4x^2 + x$ for when $x = -3$.	12.	**Evaluate** $g(-4)$ for $g(x) = \frac{3}{2}x - 6$.

Part F: Interpreting Functions [F-IF.B.6]

	Answer the questions completely.
13.	A Honda Civic with 10,000 miles has a value of $24,000 while a Honda Civic with 110,000 miles has a value of $14,000. **Calculate** the *average rate of change*. **Explain** what the average rate of change represents in the context of this problem.

Part G: Modeling with Functions [F-IF.B.4]

	Answer the questions completely.
14.	You are ordering DVDs from an online wholesale store. Each DVD costs $16. Shipping on the order will be $23. You intend to purchase up to 9 DVDs. a) **Write** a function for the cost, *C(d)*, where *d* represents the total quantity of DVDs ordered. b) **Identify** the domain of the function *C(d)*. c) **Interpret** what the intercept(s) represent.

d) **Fill** in the table with the values d and *C(d)*.

d	*C(d)*

e) **Fill** in the table with the ordered pairs.

(d, C(d))
(,)

f) **Graph** the function by plotting the ordered pairs. **Label** the graph completely.