ALG III 9/23/13 Function Notation Practice

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Find f(0) when $f(x) = x^2 - 4x - 4$.								
A) 16	B) -8	C) -4	D) 4					
2) Find f(4) when $f(x) = 5x^2 - 5x + 7$.								
A) 107	B) 53	C) 67	D) 3					
3) Find $f(\frac{1}{4})$ if $f(x) = 5x^2 + 7x - 5$.								
A) - <u>7</u>	B) – <u>47</u>	C) <u>47</u>	D) <u>7</u>					
16	16	16	16					
4) Find $f(k = 1)$ when $f(x) = 5x^2 + 3x = 6$								
				-)				
A) 5k ² – 27k +2	B) 5k [∠] – 7k +2	C) -7k ² +5k - 4	D) 5k ² - 7k - 4					
5) Find $g(a + 1)$ when $g(x) = 4x + 1$.								
A) 4a – 1	B) 4a + 5	C) $\frac{1}{4}a + 1$	D) 4a + 1					
		-						
6) Find $g(a - 1)$ when $g(x) = \frac{1}{x} + 3$.								
5								
A) $\frac{a - 14}{5}$	B) $\frac{1}{5}a + 3$	C) $\frac{a+14}{5}$	D) $\frac{1}{5}a - 5$					

An equation that defines y as a function of x is given. Solve for y in terms of x, and replace y with the function notation f(x).

7)
$$9x^2 + 7y = 6$$

A) $f(x) = -9x^2 + \frac{6}{7}$ B) $f(x) = 6 - 9x^2$ C) $f(x) = \frac{6 - 9x^2}{7}$ D) $f(x) = \frac{6 + 9x^2}{7}$
8) Find $f(-1)$ when $f(x) = x^2 - 2x + 6$.
A) 9 B) -3 C) 5 D) -7 8) _____

An equation that defines y as a function of x is given. Solve for y in terms of x, and replace y with the function notation f(x).

	9) $5x - 6y = 5$				9)	
	A) $f(x) = 5 - 5x$	B) $f(x) = 5 - \frac{5x}{6}$	C) $f(x) = -5x - \frac{5}{6}$	D) $f(x) = \frac{5-5x}{-6}$		
Solve the problem. 10) The mathematical model C(x) = 400x + 70,000 represents the cost in dollars a company has in manufacturing x items during a month. Based on this, how much does it cost to produce 100 items?						
	A) \$110,000	B) \$1.75	C) \$175.00	D) \$40,000		
	11) Suppose $f(x) = mx + b$ is a mathematical model for actual time as a function of estimated time, where $f(x)$ represents actual time and x represents estimated time and m and b are constants. If $m = 4.6$ and $b = -0.6$, find $f(x)$ when x is 60 min.					
	A) 276.6 min	B) 57.24 min	C) 62.76 min	D) 275.4 min		
	12) Suppose the sales of a particular brand of appliance are modeled by the linear function $S(x) = 220x + 2700$, where $S(x)$ represents the number of sales in year x, with $x = 0$ corresponding to 1982. Find the number of sales in 1992.					
	A) 9800	B) 9580	C) 4900	D) 4680		

Answer Key Testname: UNTITLED1

- 1) C 2) C 3) B 4) D 5) B 6) C 7) C 8) A 9) D 10) A 11) D 12) C