Name _____ Date _____ Period _____

Module 1 Test Review
Secondary Math 2 Honors
Quadratic Functions

Part I

Simplify the following expressions.

1) $(2x-5)-(3x+2)$

2) $(x+4)+(2x-3)$

3) $(x+2)(6x-4)$

4) $(3x-2)(x+4)$

5) $(3x-2)(6x-4)$

6) $(3x+2)-(6x+4)$

7) $(x+2)(x^2-6x-4)$

8) $(x^2+3x-2)(6x-4)$

9) $(x+4)+(2x-3)-(4x+1)$

Evaluate the following functions for $f(-1)$, $f(0)$, $f(2)$, and $f(5)$.

10) $f(x)=-3x+5$

11) $f(x)=3\cdot 2^x$

12) $f(x)=x^2-3x+4$

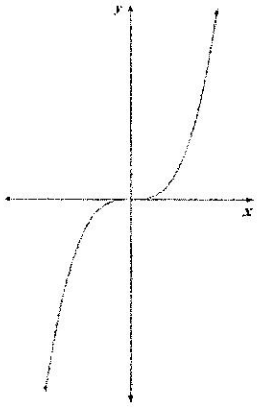
13) $f(x)=\frac{1}{2}x-\frac{5}{2}$

14) $f(x)=2(-3)^x$

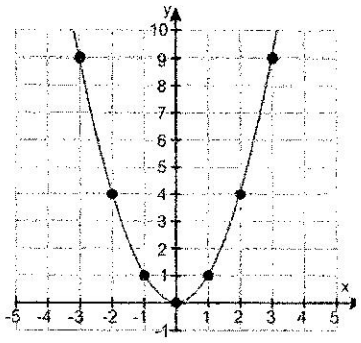
15) $f(x)=-5x^2+x-11$

For each of the following representations of a given function tell if it is Linear, Exponential, Quadratic, or Neither.

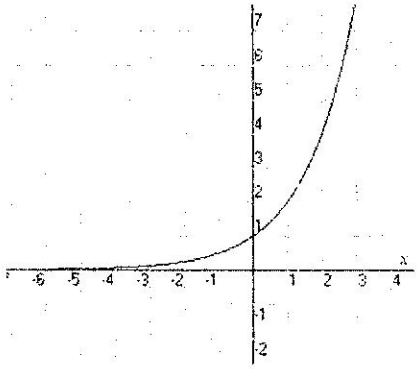
16)



17)



18)



19) $f(x)=2^{x-1}+5$

20) $f(x)=\left(\frac{2}{x-3}\right)^2+3$

21) $f(x)=\frac{7}{5}x^2-\frac{5}{3}x+\frac{3}{2}$

22)

x	y
0	4
1	12
2	36
3	108
4	324

23)

x	-3	-2	-1	0	1	2	3
y	18	7	0	-3	-2	3	12

24)

x	-3	-2	-1	0	1	2	3
y	4	-1	-4	-5	-4	-1	4

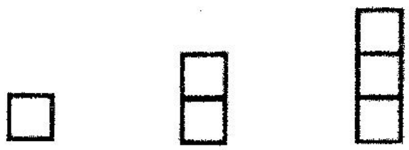
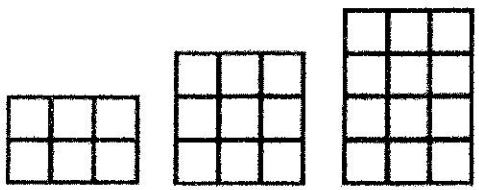
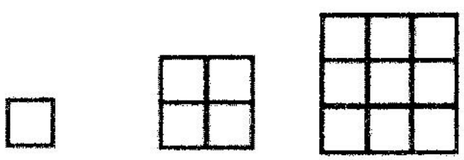
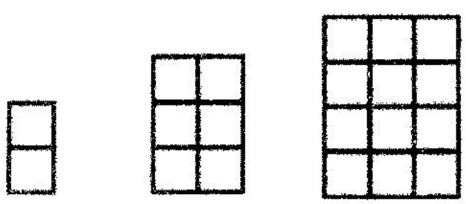
25) $f(x)=-8f(x-1)$, $f(0)=5$

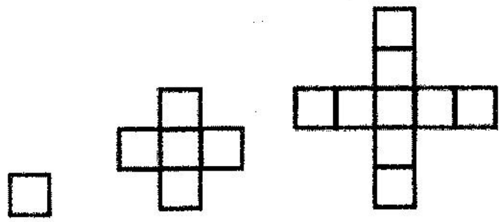
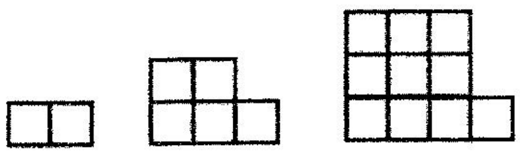
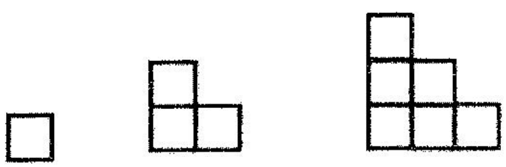
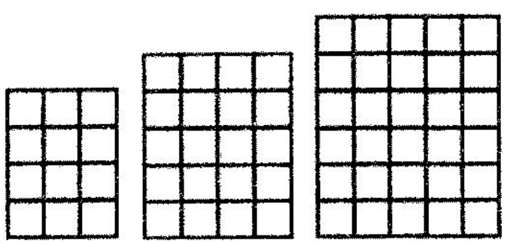
26) $f(x)=f(x-1)-6$, $f(0)=5$

27) $f(x)=f(x-1)+5x-10$, $f(0)=5$

Part II

Complete the following tables by filling in the Next Figure box, the Table of Values box, the Formula box, and the Type box for each of the given patterns.

Pattern	Next Figure	Table of Values	Formula	Type?
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______

 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______
 Step 1 Step 2 Step 3		Step # (n) | # of Squares $f(n)$	Recursive: Explicit:	Linear _____ Quadratic _____ Exponential ______