	Topic/Objective: 1.1 AGS 2	**Name:** Key
	Introduce Quadratics, review distributive property, and review linear and exponential functions.	**Period:** 5
		Date: 09/12/2017

Essential Question: What are the features of a quadratic function?

Questions:

Which table represents linear, exponential, or neither?

x	1	2	3	4	5
f(x)	2	5	8	11	14

linear +3 +3 +3 +3

x	1	2	3	4	5
f(x)	2	3	5	8	12

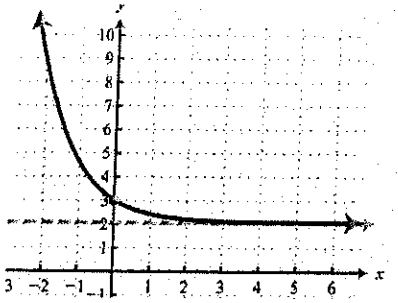
neither +1 +2 +3 +4

quadratic

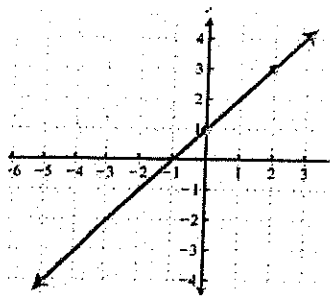
x	1	2	3	4	5
f(x)	2	6	18	54	162

exponential ·3 ·3 ·3 ·3

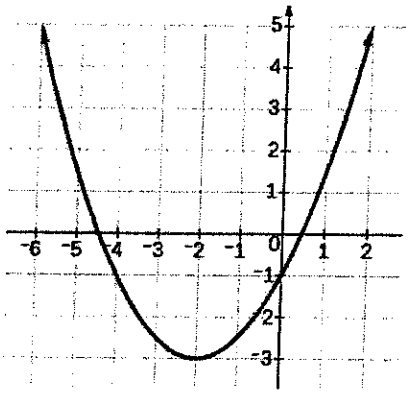
Name which type of function each graph represents.



exponential



linear



quadratic

Simplify:

1. $5(2x + 9)$

$10x + 45$

2. $-3(6x - 1)$

$-18x + 3$

3. $x(3x + 8)$

$3x^2 + 8x$

4. $2y(3y - 7)$

$6y^2 - 14y$

5. $4a(2a - 3b)$

$8a^2 - 12ab$

6. $\frac{1}{2}(4x - 10)$

$2x - 5$

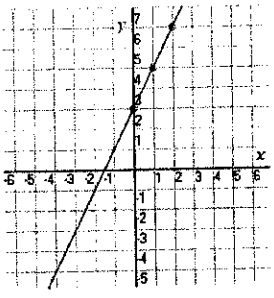
7. $\frac{2x}{3}(9x + 24)$

$6x^2 + 16x$

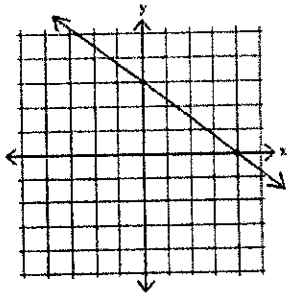
8. $\frac{-x}{4}(16x - 8)$

$-4x^2 + 2x$

Find the rate of change (slope):



$\frac{+2}{1}$



$\frac{-3}{4}$

Summary: What are the features of a quadratic function?