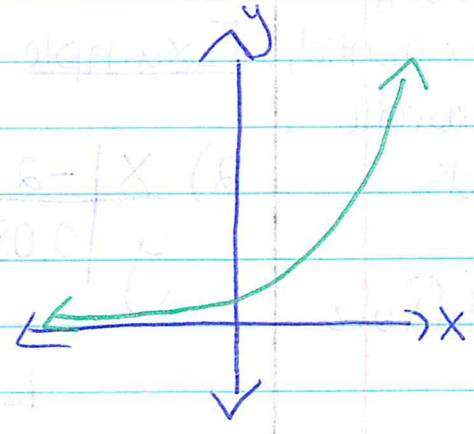
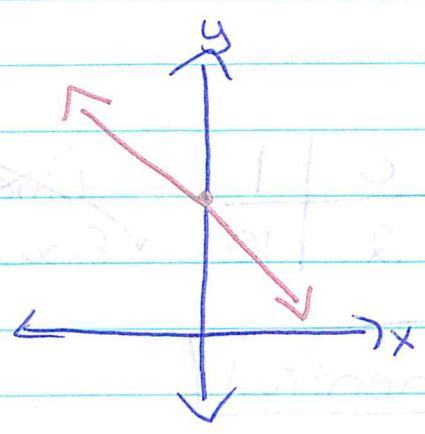


Name  
Alg I

# 9.8 Compare Linear, Exponential, and Quadratic Models

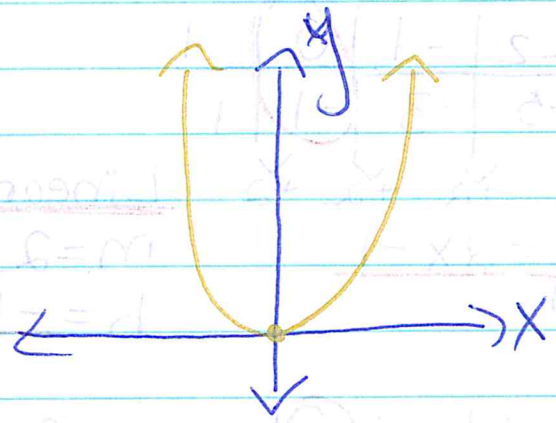
I can compare linear, exponential, and quadratic models.



Cho 9 Quiz

Linear:  $y = mx + b$

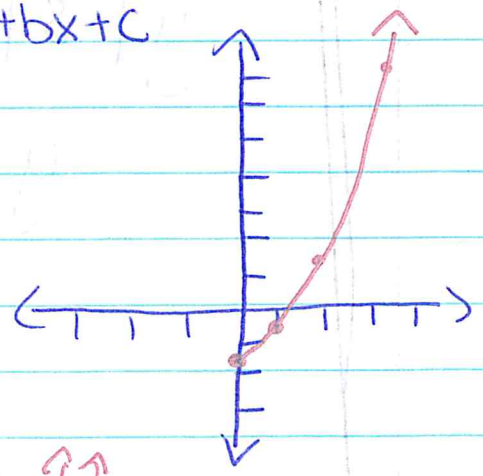
Exponential:  $y = ab^x$



Quadratic:  $y = ax^2 + bx + c$

Example 1:

- 1)  $(0, -1.5), (1, -0.5), (2, 2.5), (3, 7.5)$



Quadratic: Made a U and crossed x-axis

Name

Alg I

# Compare Linear, Exponential, and Quadratic Models

I can compare linear, exponential, and quadratic models.

## Example 2:

2) X	-2	-1	0	1
y	0.08	0.4	2	10

~~Linear~~ → Not constant  
 ✓ Exponential:  $\frac{2}{.4} = 5$   
 $\frac{10}{2} = 5$

Exponential

Ch 9 Quiz

## Example 3:

\* Complete Skills Practice, pg. 632, #

3) X	-3	-2	-1	0	1
y	-7	-5	-3	-1	1

$\downarrow +2$     $\downarrow +2$     $\downarrow +2$     $\downarrow +2$

$y = 2x - 1$

Linear ✓  
 $m = 2$   
 $b = -1$

4) X	-2	-1	0	1	2
y	8	2	0	2	8

Quadratic ✓

$y = ax^2$

$2 = a(1)^2$

$2 = a$

$y = 2x^2$

Quadratic Models: parabolas  
 and crossed x-axis