

$$5x-2y \leq 75$$



$$\begin{bmatrix} a & b \\ c & d \end{bmatrix}$$



$$S = Pe^{rt}$$



$$APY = \left(1 + \frac{r}{n}\right)^n - 1$$

Math 1090 ~ Business Algebra

Section 3.6 Transformations of Graphs

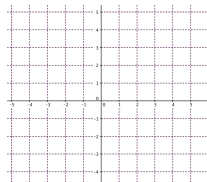
Objectives:

- Differentiate between outside and inside the function.
- Describe shifts, stretches and reflections of a parent function.
- Sketch a graph using shifts, stretches and reflections of the parent function.

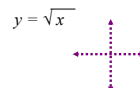
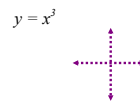
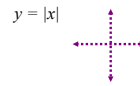
Transformations to a graph of $f(x)$.

	shift	reflection	stretch/shrink
V			
H			

Ex 1: Describe the transformation of $f(x) = -(x-2)^2 + 3$ compared to the base graph of $y = x^2$. Sketch the graph of $f(x)$.

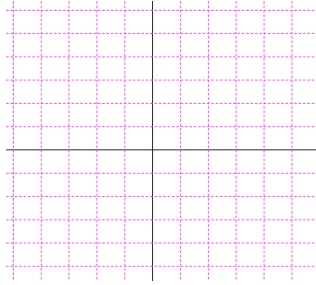


Base graphs

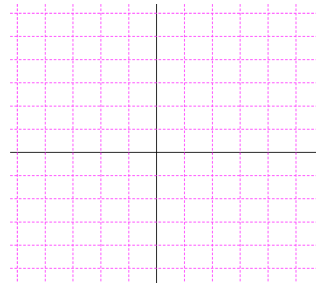


Ex 2: Describe the transformations and sketch the graph.

a) $q(x) = -2|x-3| + 1$

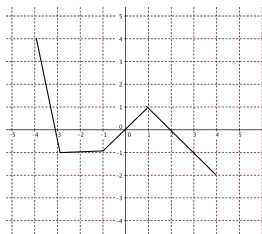


b) $h(x) = 4(x+2)^2 - 3$

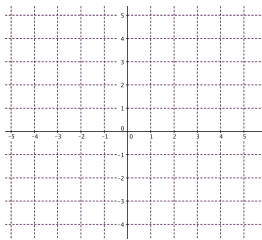


Ex 3: Given this graph of $f(x)$, sketch the indicated transformed graph.

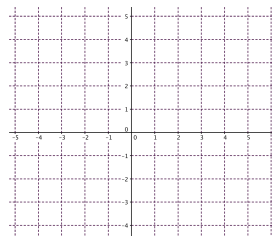
$f(x)$



$f(-x) + 1$



$f(x+1)$



$-f(x) + 1$

