

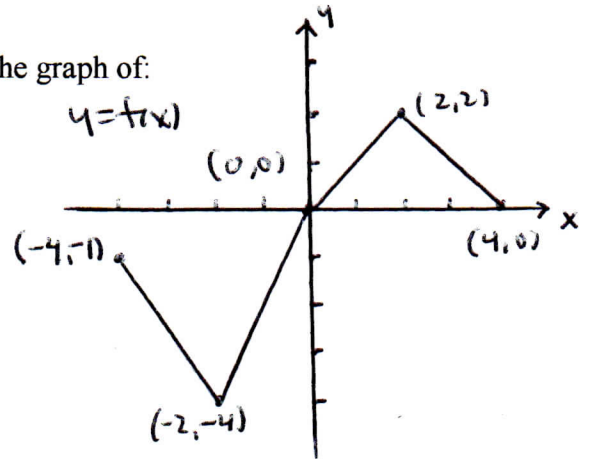
Precalculus:

Homework
10/23 – 10/27

on: Tuesday: test

due: Wednesday:

1. Write an equation whose graph can be obtained from the graph of:
 - a. $y = x^2$ by raising it 5 units.
 - b. $y = x^3 - 2$ by lowering it 3 units.
 - c. $y = x^2$ by reflecting it in the x-axis.
 - d. $y = f(x)$ by reflecting it in the y-axis.
2. Given the graph of $y = f(x)$, graph:
 - a. $y = f(-x)$
 - b. $y = f(x) + 2$
 - c. $y = f(x) - 1$
 - d. $y = -f(x)$



Thursday:

1. Write an equation whose graph can be obtained from the graph of:
 - a. $y = f(x)$ by a shift 2 units to the right and 3 units down.
 - b. $y = f(x)$ by a shift 4 units to the right and 5 units up.
 - c. $y = f(x)$ by a shift 7 units to the left.
2. Using the graph of $y = f(x)$ above, graph:
 - a. $y - 2 = f(x - 3)$
 - b. $y + 1 = f(x - 1)$

Friday:

1. Write an equation whose graph can be obtained from the graph of $y = x^2$ by vertically stretching it by a factor of 3.
2. Write an equation whose graph can be obtained from the graph of $y = f(x)$ by horizontally shrinking it by a factor of 2.
3. Using the graph of $y = f(x)$ above, graph:
 - a. $y = 2f(x)$
 - b. $y = \frac{1}{2}f(x)$
 - c. $y = f(2x)$
 - d. $y = f(\frac{1}{2}x)$

Monday:

1. Write an equation whose graph can be obtained from the graph of $y = x^2 - 4$ by reflecting all points below the x-axis above the x-axis, leaving all other points alone.
2. Write an equation whose graph can be obtained from the graph of $y = f(x)$ by having the points on the left of the y-axis being reflected from the right of the y-axis and leaving all other points alone.
3. Using the graph of $y = f(x)$ above, graph:
 - a. $y = |f(x)|$
 - b. $y = f(|x|)$