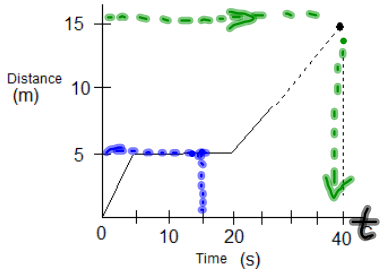
Getting Started – Unit 6

Date: Apr.27/11

Ex. 1: The graph represents a student using a motion sensor with a graphing calculator.



Interpolate: estimating **within** the data

Extrapolate: estimating **beyond** the data

a) What is the distance of the student from the motion sensor at 15 s?

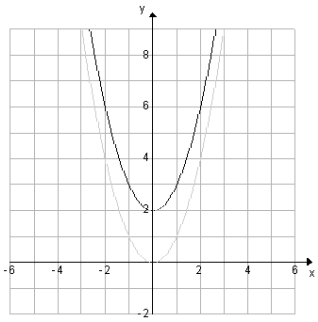
5 m

b) At what time is the student 15 m from the origin?

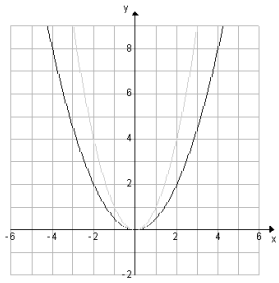
40 s

Ex. 2: Match each word with the picture or example that best illustrates its definition.

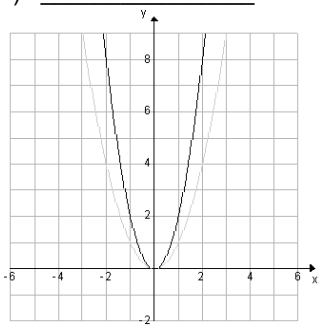
(i) a) vertical translation



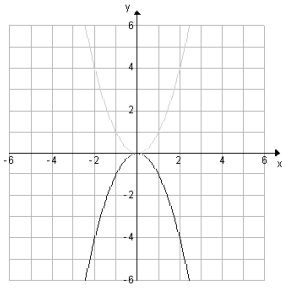
(iii) d) vertical compression



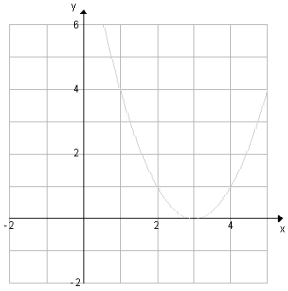
(v) b) vertical stretch



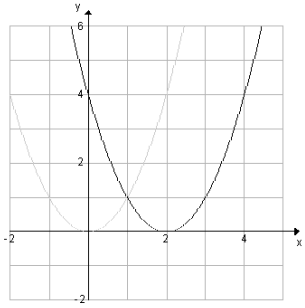
(ii) f) reflection



(iv) e) minimum value

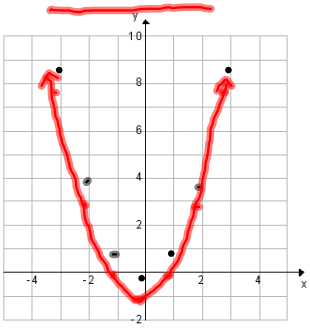


(vi) c) horizontal translation

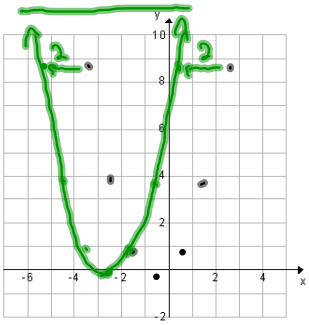


Ex. 3: Use the transformations of the graph $f(x)=x^2$ to sketch the graph of each of the following:

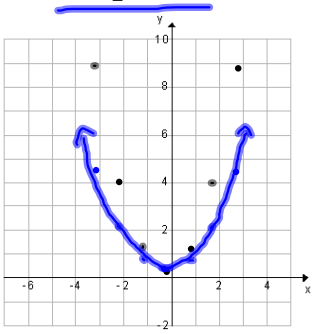
a) $y = f(x) - 1$



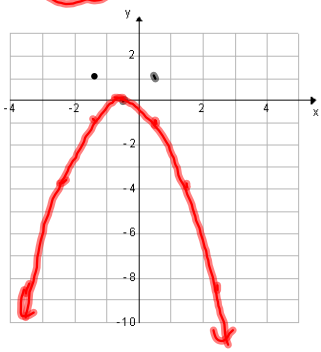
b) $y = f(x+2)$



c) $y = \frac{1}{2} f(x)$

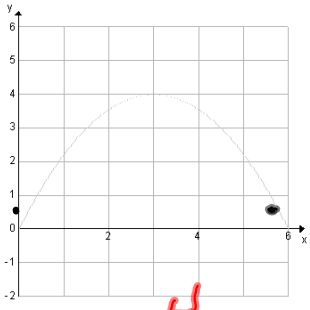


d) $y = -f(x)$



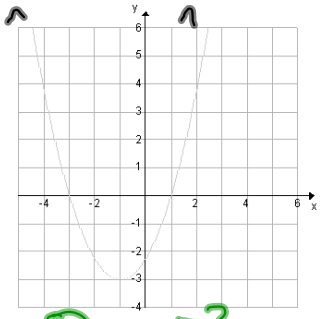
Ex. 4: For each function, determine the maximum or the minimum value, identify the zeros and state the domain and range.

a)



Max/Min Value: 4
Zeros: 0, 6
Domain: $\{x \in \mathbb{R}\}$
Range: $\{y \in \mathbb{R} / 0 \le y \le 4\}$

b)



Max/Min Value: -3
Zeros: $-3, 1$
Domain: $\{x \in \mathbb{R}\}$
Range: $\{y \in \mathbb{R} / y \ge -3\}$

Homework: p. 322 # 3 (sketch only), 4, 6, 7 (Due Fri. Apr. 29)

$\{x \in \mathbb{R}\}$

$\{x \in \mathbb{R} / 0 \le x \le 6\}$