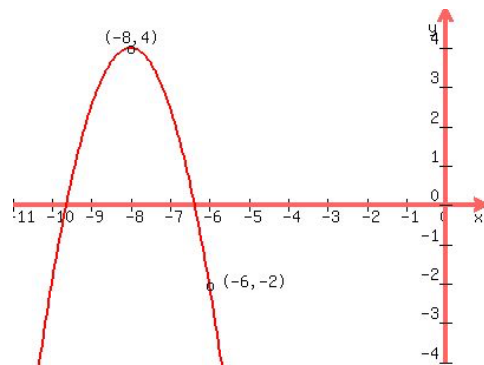


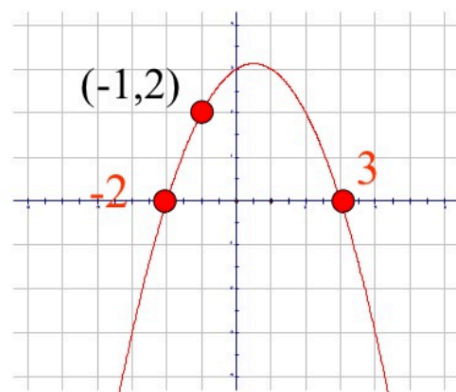
Ryuto Assessment 8/15/18

1. Gary lives in City A, which is 320 miles apart from City B on a straight road. Sarah lives in City B. At 9:00 am Gary starts driving toward City B, and Sarah drives toward City A. Gary is driving 10 miles per hour faster than Sarah, and they drive past each other at 1:00 pm. How fast were Gary and Sarah each driving?

2. What is the equation of the graph to the right? If it's hard to see, the given points are $(-8, 4)$ and $(-6, -2)$.



3. What is the equation of the graph to the right? The x-intercepts are at $(-2, 0)$ and $(3, 0)$.



4. Solve for the variable by completing the square, and simplify the answer as much as possible: $2x^2 + 6x - 4 = 3$

5. Suppose there is a line with the equation $3x - 7y = 12$

a) What is the equation of the line that is parallel to the line above that goes through the point (5, 2)?

b) What is the equation of the line that is perpendicular to the first line that goes through (-3, 6)?

6. Graph the solution region to the system of inequalities.

$$3x + y \geq -3$$

$$x + 2y \leq 4$$

