Unit 0 HW #6

1. Use any method to find the points of intersection of $f(x) = 2x^2 - 3x + 4$ and $g(x) = x^2 + 5x - 3$. *Help*
2. Solve each equation for *x*. *Help*
   a. $-2(x + 4) = 35 - (7 - 4x)$
   b. $\frac{x-4}{7} = \frac{8-3x}{5}$
3. Make a complete graph of the function $f(x) = \sqrt{x} - 2$, label its *x*- and *y*-intercepts, and describe its domain and range. *Help*
4. What value of *y* allows you to find the *x*-intercept? For each of the equations below, find where its graph intersects the *x*-axis. Write each answer as an ordered pair. *Help*
   a. $y = 3x + 6$
   b. $y = 2x^2 - 4$
   c. $y = (x - 5)^2$
   d. $y = x^3 - 13$
5. Solve each equation below for the indicated variable. *Help*
   a. $y = mx + b$ for *x*
   b. $A = \pi r^2$ for *r*
   c. $V = LHW$ for *W*