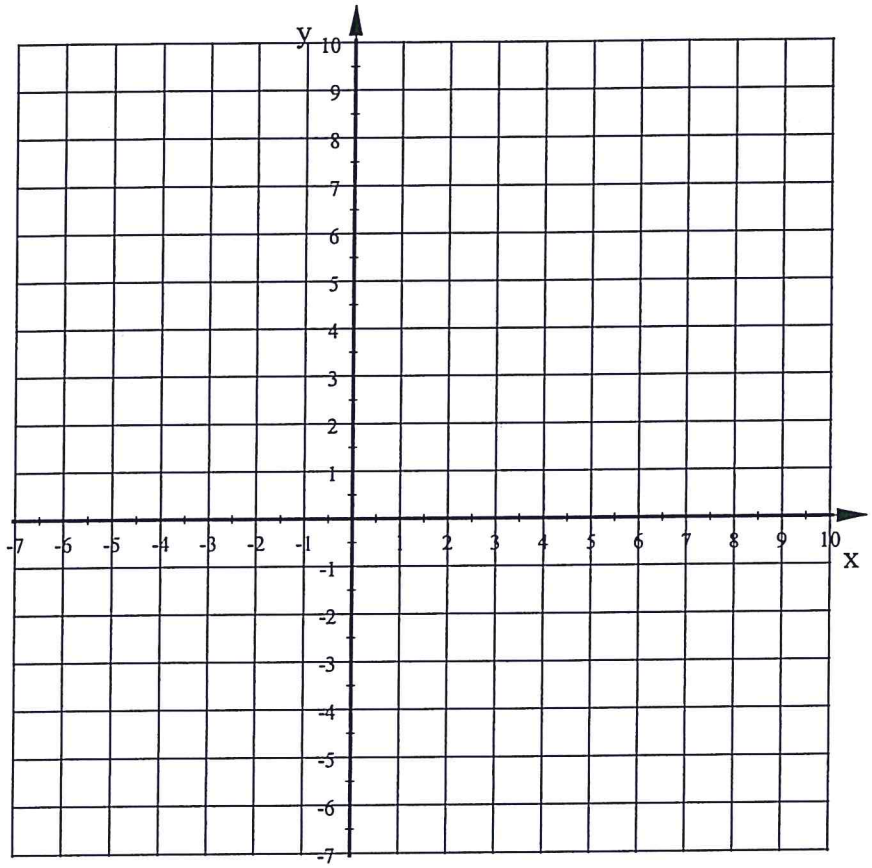
Algebra 2 Sec 7-7: Inverse Relations Spring 2015

1. Use these points: $(-6,9),(-5,3),(-4,1),(-3,3),(-2,9)$

a) Plot the following points and connect them to form a parabola.



b) Write the equation of this parabola. $f(x) =$

2. Take each ordered pair and switch the position of each number then plot this point on the same graph that you used for the parabola. Do this with all five points and connect them with a smooth curve.
Example: $(-6,9)$ becomes $(9,-6)$

3. You have just created the **inverse relation** of $f(x)$. The inverse is denoted by the symbol $f^{-1}(x)$
The graph of $f^{-1}(x)$ is actually a reflection of $f(x)$ over a line. What is this line of reflection?
(Remember, a Line of Reflection is the line that is equidistant from corresponding points on $f(x)$ and $f^{-1}(x)$. i.e. it's exactly in the middle of the two graphs)

Do the problems on the back too!

Solve each equation for the indicated variable.

4. Solve for K $\quad G = T(ZK - Q)^2 - H$

5. Solve for A $\quad \sqrt{\frac{E - CA}{W}} + R = X$

6. Solve for P $\quad \frac{D\sqrt{P + K} + B}{N} - C = J$