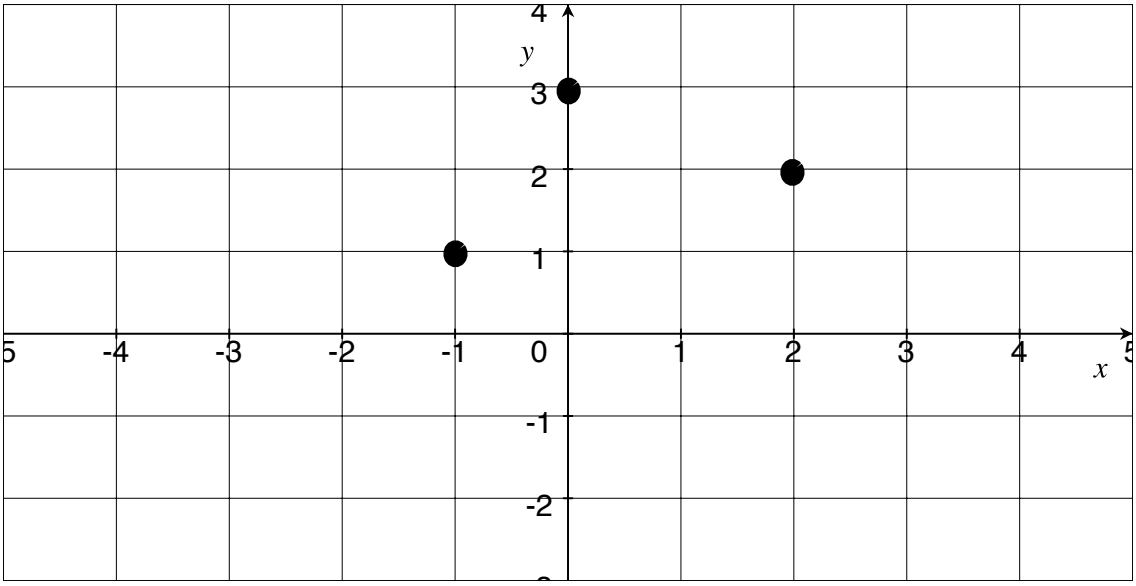
Quiz 3

Show *all* your work algebraically for each and simplify. No credit is given without supporting work. There are *two* sides to this quiz.

1. [3] (§2.1 #13) Find the number c so that $(c, 13)$ is on the line containing $(-4, -17)$ and $(6, 30)$.

2. [3] Find the vertex of the parabola defined by the rule $x^2 + 2x - 5$.

3. Let n be the function defined by the following graph:



(a) [1] Does n have an inverse? Why or why not?

(b) [1] If n does have an inverse graph n^{-1}. If n does not have an inverse, restrict the domain to a new function q that does have an inverse and then draw q^{-1}.

4. [2] (WebHW5 #7) Given that $f(x) = \dfrac{x}{x-2}$ is one to one, find f^{-1}.