

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.

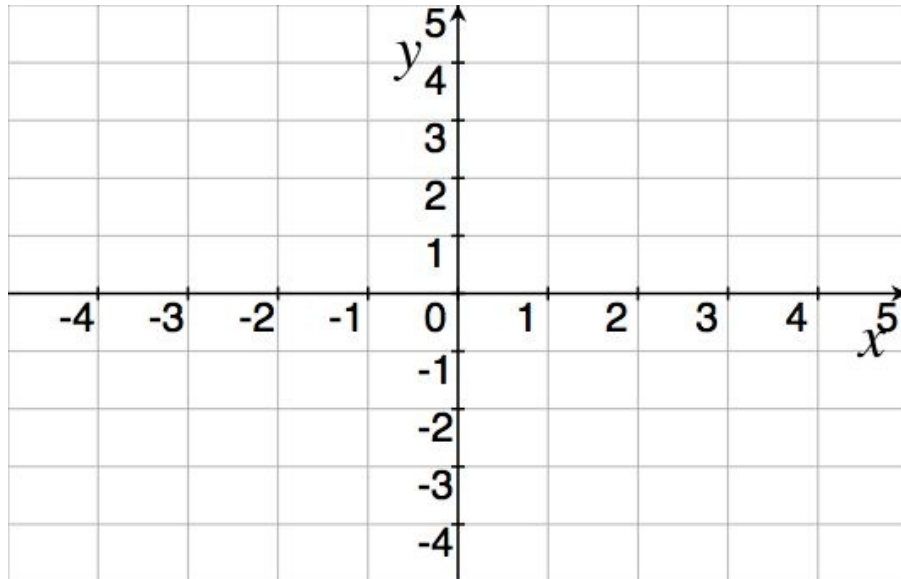
1. [3] Find the number t so that $(-2, t)$ is on the line containing $(5, -2)$ and $(10, -8)$.

2. [2] Find the vertex of the parabola defined by the rule $x^2 - 4$.

3. [3] Given that the *function* f is defined by:

$$f(x) = \begin{cases} x^2 + 4 & x < 1 \\ -x + 3 & 1 \leq x \end{cases}$$

Graph f .



(a) [2] Does f have an inverse? Why or why not?