Quiz 9

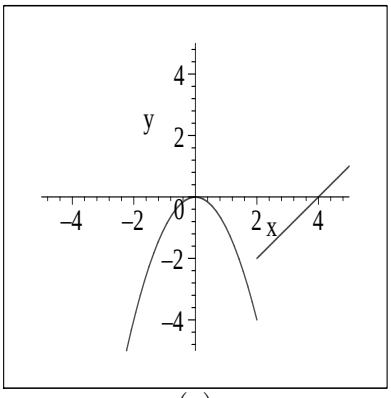
MATH 139-01 and -02
Tuesday, October 7, 2003

Be sure to **show your work**. Unsupported answers receive no credit.

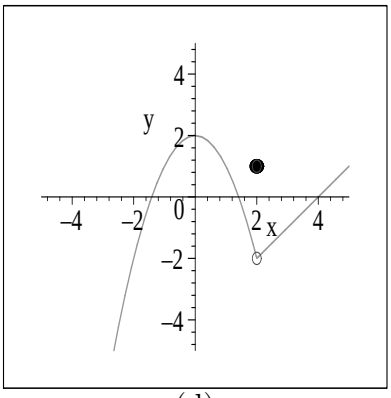
1. Determine whether each function is continuous at $x = 2$. State in each case whether it is or it isn't continuous at $x = 2$.

   (a) $f(x) = x^2 - 4$

   (b) $f(x) = \dfrac{1}{x^2 - 4}$



(c)



(d)

2. Use the definition of the derivative to show that the derivative of $f(x) = 3x - 2$ is 3.