

Quiz 6

MATH 139-02
Thursday, February 19, 2004

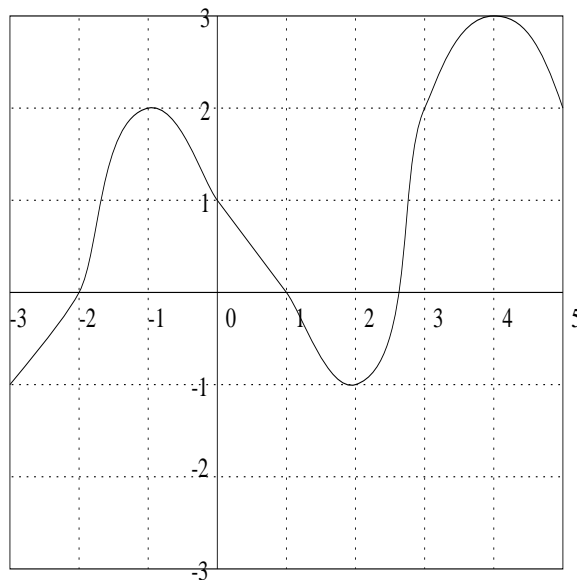
1. Let $f(x) = (0.75)^x$.

(a) Estimate $f'(0)$ using $\Delta x = 0.001$.

(b) Explain why the answer you found in (a) has the sign it does. (Positive or negative.)

(c) What is $\ln(0.75)$? What do you notice?

2. On the graph below, indicate in which regions $f'(x) > 0$, in which regions $f'(x) < 0$, and at what points $f'(x) = 0$.



$y = f(x)$