Solutions to Quiz 7

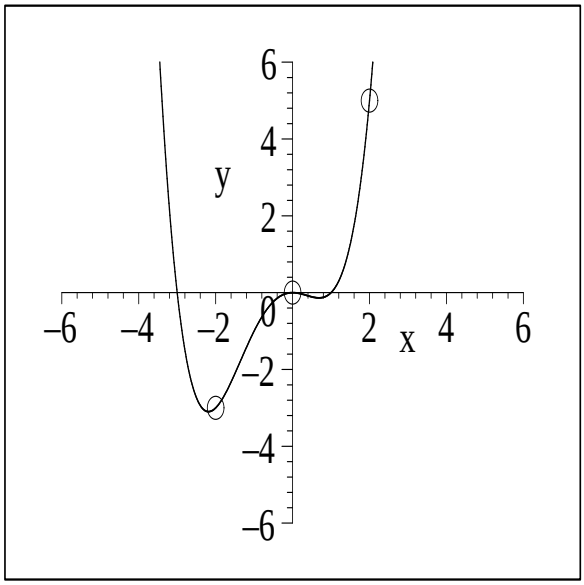
MATH 139-01 and -02
Monday, September 29, 2003

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

1. Let $g(t) = (0.8)^t$. Use a small interval to estimate $g'(2)$.

   Solution: I will use a width of 0.001: $\dfrac{0.8^{2.001} - 0.8^2}{2.001 - 2} \approx -0.143$.

2. Consider the graph shown. At which of the given points is the slope positive? Negative? Zero?



   The lowest and highest points both have a positive derivative since the function is increasing in both of those places. The derivative at the middle point is 0 since the tangent line there is horizontal.