Mathematics 122

Quiz #9   Name: _____Key_____

You must show your work to get full credit.

1. A function is given the the table

x	1.0	1.2	1.4	1.6
$f(x)$	3.1	2.9	2.5	1.9

Estimate $f'(1.2) \approx \frac{\Delta y}{\Delta x}$ $f'(1.2) \approx$ ___-1.5___

$$= \frac{2.5 - 3.1}{1.4 - 1.0}$$

$$= \frac{-.6}{.4} = -1.5$$

2. Let

$$f(x) = \frac{2^x}{1 + x^2}$$

Use your calculator to estimate $f'(1.32)$

$f'(1.32) \approx$ ___$-.2454$___

$f'(1.32) = n\,Derv\left(2^\wedge x / (1 + x^\wedge 2), X, 1.32\right) = -.2454$