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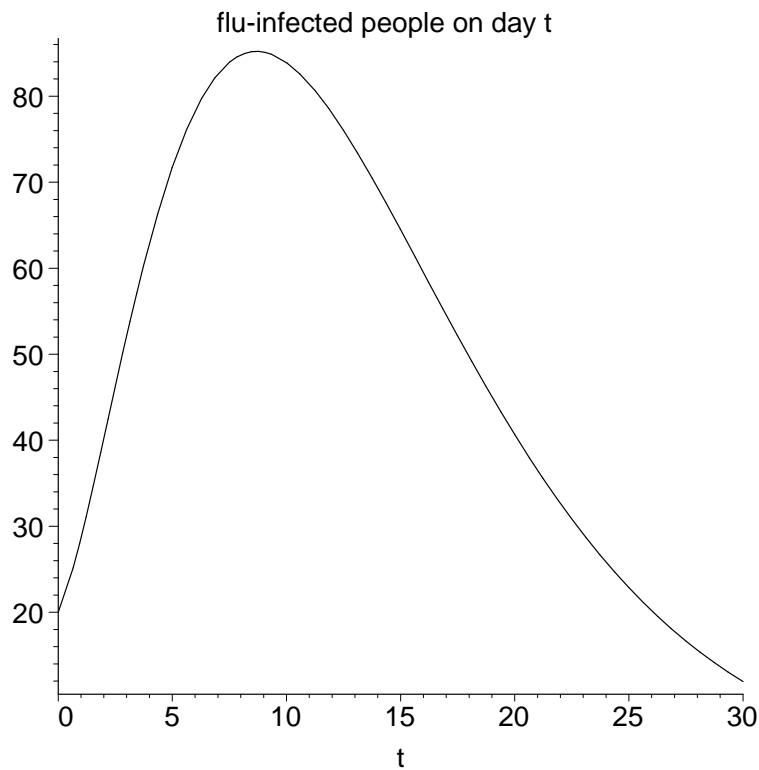
Math 1210-2

Quiz 4

September 28, 2007

Show all work for complete credit!

1) Mathville is hit with a flu epidemic. The number of sick people at time t days after the illness hits is plotted below.



1a) About how many people were sick with the flu on day 5?

(1 point)

1b) At about what rate was the number of sick people increasing on day 5?

(2 points)

2) Find the following derivatives

2a) $D_t (2t + 1)^5 \cos(3t)$.

(2 points)

2b) $f'(\pi)$, for $f(x) = \frac{\tan(x) - 5}{\sec(x)}$. (You should evaluate all trig functions in your final answer.)

(2 points)

3) Use the limit definition of derivative to compute ONE of the following derivatives (your choice, but if you try both, indicate which one you want graded!)

3a) $D_x \left(\frac{1}{x^2} \right)$.

3b) $D_x \sin(x)$. (If you choose this one you may use the trig limits we used in class and in the previous webworks assignment.)

(3 points).