

Calculus:

Homework
10/16-10/20

due: Tuesday:

Using the alternate definition of derivative, find:

1. $f'(3)$ if $f(x) = x^2 + 9x - 5$.
2. $f'(1)$ if $f(x) = x^3 - x^2 + 2x - 4$.

Wednesday: read pp. 185-189

pg. 196 / #1, 2, 4, 5, 6, 8, 9, 12

Thursday: read pp. 189-193

1. pp. 196-197 / #18, 23, 26, 34, 41, 46, 68
2. If $f(x) = \frac{x}{1-x}$, find $f'(2)$.
3. If $y = \frac{1}{2-3x}$, find $\frac{dy}{dx}$.
4. If $f(x) = \frac{1-x}{x-1}$, find $\frac{d(f(x))}{dx}$.

Friday: read pg. 194

1. Find $\frac{d^2y}{dx^2}$: pg. 196 / #5, 10, 21, 26, 43
2. Find $f'''(5)$ if $f(x) = x^4 - 9x^2 + x - 2$.
3. If $y = x^7 - 2x^5 + 3x^3 - 9$, find $D_x^5 y$.
4. If $f(x) = \frac{-2}{x^2}$, find $f^{(4)}(x)$.

Monday: read pp. 175-177

1. pg. 178 / #32, 34
2. If $f(x) = 3 + |x - 2|$, find $f'(2)$.
3. If $f(x) = \begin{cases} x^2 + 2, & x \leq 1 \\ 2x, & x > 1 \end{cases}$, find $f'(1)$.

on: Tuesday: test