Quiz 2 for Mathematics 223
Introductory Analysis I - Spring 2000
Material Covered: Sections 2.3, 2.4 and 2.5 of workbook and text
For: Wednesday, 9th February

This is a 15 minute quiz, worth 6% and marked out of 6 points. The total possible points awarded for each question is given in square brackets at the beginning of each question. Anything that can fit on one side of an $8\frac{1}{2}$ by 11 inch piece of paper may be used as a reference during this quiz. A calculator may also be used. No other aids are permitted.

Name (please print): ——————————————— . **ID Number:** ——————— .

last   first

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1. [1] If $f(x) = 2x + 3 - 4\sqrt{x} + \frac{5}{x}$, then $f'(1) = $ (circle one) -5 / -3 / -1 / 1 / 3

2. [2] If $f(x) = \frac{2x^2}{2x+3}$, then $f'(1) = $ (circle one) **0.1** / **0.2** / **0.3** / **0.4** / **0.5**

3. [2] If $f(x) = (8x - 2)^4(4x^3)$,

   then $f'(x) = $ ——————————————————————————— .

4. [1] If $f(x) = 4x^4$,

   then $f'''(x) = $ ——————————————————————————— .

1. [1] -5

2. [2] **0.2** (since $f'(x) = \frac{(2x+3)(4x)-(2x^2)(2))}{(2x+3)^2}$)

3. [2] $f'(x) = (8x-2)^4(12x^2) + (4x^3)(4)((8x-2)^3)(8),$

4. [1] $f'''(x) = 96x$