Mathematics 1151

Practice Computational Test 1

Name: _____

Recitation Instructor and time: _____

OSU username (lastname.#): _____

Compute the derivative of each of the following 8 functions. You do not need to simplify. You do not need to show steps. Calculators are not allowed. **No partial credit will be awarded.** Be very careful with notation, signs, parentheses, etc. Please circle or box your final answer for each question.

1. $f(x) = \ln\left(5\cot\left(5x^7 + 6\right)\right)$

2. $f(x) = e^{\sin(x)}\cos(4x)$

3. $f(x) = (4x + \cos(2))^{55}$

4. $f(x) = x^6\sec(2) + e^{-3x}$

5. $f(x) = \left(\dfrac{4x^{10} - 2x}{x^6 + 3}\right)\sec(x)$

6. $f(x) = \sqrt{\dfrac{4}{x^4} + 2x}$

7. $f(x) = \cot^2(x) + \csc^3(2x)$

8. $f(x) = \dfrac{e^{3x}\sqrt{x}}{\ln(x)}$