Mathematics 1151

Practice Computational Test 3

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. $f(x) = \dfrac{\cos(x)e^{3x}}{e^2}$

2. $f(x) = e^{5x} + \sqrt{x} + \dfrac{5}{x^6}$

3. $f(x) = (x\sin(x) + 5)(x^2 - 3)$

4. $f(x) = x7^{\pi} + \pi^7 + 7x^{\pi} + 7^x$

5. $f(x) = \tan\left(\dfrac{x^{13} - 5x}{4 - 3x^3}\right)$

6. $f(x) = \dfrac{\sec^4(x) + \csc(2)}{\sqrt{x^3 + 1} + 2}$

7. $f(x) = x \ln(\ln(x))$

8. $f(x) = \sqrt{5x - \dfrac{3}{x^2}}$