Math 152 **Calculation Exam D-03**

Name: _____ Score: _____

Instructions: There are 10 functions on this exam. Compute their derivatives using our derivative rules. You must completely correctly calculate at least 8 of the 10 derivatives in order to pass. You may not use a calculator, and you do not need to simplify!

1. $f(x) = 3x^5 - 7x^2 + 4$

2. $g(y) = 2y^{-3} + 8y - y^{1/3}$

3. $h(x) = (x^3 - 5 + e^x)^6$

4. $k(w) = \dfrac{w}{\sqrt{5w+1}}$

5. $p(t) = \tan(t^4)$

6. $F(x) = \sin(3x)\cos^2(x)$

7. $G(y) = \dfrac{\sec(y)}{1 + e^{2y}}$

8. $H(z) = z^2 \cot(9z + 1)$

9. $K(w) = \ln(4w^3 + 1)$

10. $P(t) = \arcsin(\ln(t))$