MAT 136: CALCULUS I
GATEWAY EXAM - VERSION B
Full Pass requires 7 or 8 problems; Half Pass 5 or 6. No partial credit
NO CALCULATOR OR SCRATCH PAPER
BOX FINAL ANSWERS

In each case, find the derivative of the given function. It is not necessary to simplify the result algebraically.

1. $f(t) = t^2 e^{3t}$

2. $f(x) = \dfrac{\cos(x) - 2}{\cos(x) + 2}$

3. $g(x) = \ln(\sin(x))$

4. $f(t) = \dfrac{t^3}{3} - \dfrac{1}{4t^3}$

5. $f(x) = \sqrt{2 - \sin(x^2)}$

6. $f(x) = \arctan(3x)$

7. $g(t) = 5^{t^3} = 5^{t^3}$

8. $f(x) = \tan^3(x)$