

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Compute the derivative of f :

(a) $f(x) = \frac{e^{3x} - e^{-3x}}{e^{3x} + e^{-3x}}$

(b) $f(x) = \log_2(x^4 \sin^2 x)$

2. Find an equation for the tangent line to the curve $xe^y + ye^x = 1$ at the point $(0, 1)$.