

MAT 1500-03/11 Quiz 6 Print Name (Last, First) \_\_\_\_\_

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Show all work on this sheet, including mental steps, in a clearly organized way that speaks for itself. Use proper mathematical notation. Box final short answers.

①  $f(x) = 5e^{-2x} \sin 9x$ . Evaluate  $f'(x)$  and factor the result.

②  $f(x) = \frac{8}{\sqrt{4+3x}}$ . Write equation of tangent line to <sup>the</sup> graph  $y = f(x)$  at  $x = 4$  and simplify to form  $y = \dots$