

**Name:****Class:****Class #:****Section #:****Instructor**

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Assignment

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Question 1: (1 point)

$$f(x) = 14x^{22} + 16x^6 + 23 - \frac{7}{x^9}$$

Find the derivative of

Question 2: (1 point)Differentiate the function $g(t) = t^6 e^t$.

Question 3: (1 point)

$$g(x) = \frac{\sin(x)}{48 - 32x + 9x^2}$$

Find the derivative of

Question 4: (1 point)

Find the derivative of $w(z) = \cos(14 + 5z + 10z^2)$.

Question 5: (1 point)

$$h(w) = -11 w^{\frac{17}{11}} - \frac{7}{w^{\frac{12}{11}}}$$

Find the derivative of

Question 6: (1 point)

Find the derivative of $p(x) = x^3 e^{(19 + 3x)}$

Question 7: (1 point)

Differentiate $f(x) = (\ln(7y))^7$.

Question 8: (1 point)

Find the derivative of $G(z) = (14 + 16z + e^z)^{75}$.

Question 9: (1 point)

Find the derivative of $w(z) = \sqrt[4]{(12 + 9z + 6z^2 + 7z^3)}$.

Question 10: (1 point)

Find the derivative of $f(x) = \frac{3 + 23x + 15x^2}{\sqrt{\cos(x)}}$.

Question 11: (1 point)

Find the antiderivative $\int (3 + 13x + 7x^2 + 12x^3 + 19x^4) dx$

Question 12: (1 point)

Find the antiderivative $\int -11e^z dz$
