

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Class #: \_\_\_\_\_

Section #: \_\_\_\_\_

Instructor

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Assignment

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**Question 1: (1 point)**

$$f(x) = 14x^{11} + 21x^4 + 31 + \frac{3}{x^2}$$

Find the derivative of

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

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**Question 3: (1 point)**

Find the derivative of  $h(z) = \frac{e^z}{\cos(z)}$ .

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**Question 4: (1 point)**

Find the derivative of  $w(z) = \ln(1 + 3z + 10z^2)$ .

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**Question 5: (1 point)**

$$h(w) = 11 w^{\frac{23}{14}} + \frac{3}{w^{\frac{23}{14}}}$$

Find the derivative of

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**Question 6: (1 point)**

Find the derivative of  $p(x) = x^5 \cot(15 + 8x)$ .

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**Question 7: (1 point)**

Differentiate  $f(x) = (\ln(2x))^5$ .

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**Question 8: (1 point)**

Find the derivative of  $G(z) = (12 + 11z + e^z)^{37}$ .

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**Question 9: (1 point)**

Find the derivative of  $w(z) = \sqrt[3]{(16 + 4z + 14z^2 + 7z^3)}$ .

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**Question 10: (1 point)**

Find the derivative of  $f(x) = \frac{25 + 13x + 21x^2}{\sqrt{\cos(x)}}$ .

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**Question 11: (1 point)**

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

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**Question 12: (1 point)**

Find the antiderivative  $\int 3 \sin(z) dz$

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