Name: _____

Quiz 11

MATH 200
September 28, 2023

1. Differentiate: $f(x) = \ln\left|5x^3 + 3x^2 + x\right|$

2. Differentiate: $y = \dfrac{1}{\ln(x)}$

3. Differentiate: $g(x) = \ln\left(\dfrac{1}{x}\right)$

4. Differentiate: $w = x - \dfrac{xe^x}{\ln(x)}$

5. Find the equation of the tangent line to the graph of $f(x) = 2 + x\ln(x)$ at the point $\big(1, f(1)\big)$.

Name: _____

Quiz 11

MATH 200
September 28, 2023

1. Differentiate: $y = \cos(x)\ln(x)$

2. Differentiate: $f(x) = \cos\big(\ln(x)\big)$

3. Differentiate: $g(x) = \ln\big(\cos(x)\big)$

4. Differentiate: $y = 4 + \sqrt{x + x^2\ln(x)}$

5. Find the equation of the tangent line to the graph of $f(x) = \ln(2x - 1)$ at the point $\big(1, f(1)\big)$.