

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

1. Find the derivative:  $y = \frac{1}{x^2 + \ln(x)}$

2. Find the derivative:  $y = \ln(\cos(x))$

3. Find the derivative:  $y = \cos(\ln|x|)$

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

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

QUIZ 11 ♣

MATH 200  
October 6, 2021

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1. Find the derivative:  $y = \ln(x^3 + x)$

2. Find the derivative:  $y = \sin(\ln|x|)$

3. Find the derivative:  $y = \frac{x \ln|x|}{3x + 1}$

4. Find the equation of the tangent line to the graph of  $f(x) = \ln(x)$  at the point  $(1/e, f(1/e))$ .

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

QUIZ 11  $\diamond$

MATH 200  
October 6, 2021

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1. Find the derivative:  $y = \frac{e^{-2x}}{x^2 + \ln(x)}$

2. Find the derivative:  $y = \ln(\tan(x))$

3. Find the derivative:  $y = \tan(\ln|x|)$

4. Find the equation of the tangent line to the graph of  $f(x) = 2\ln(x)$  at the point  $(e, f(e))$ .

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

QUIZ 11 ♠

MATH 200  
October 6, 2021

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1. Find the derivative:  $y = (x^2 + \ln(x))^5$

2. Find the derivative:  $y = \ln(x + \cos(x))$

3. Find the derivative:  $y = x + \cos(\ln|x|)$

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