Quiz 2

This is a preview of the published version of the quiz

Started: Nov 3 at 9:14am

Quiz Instructions

Question 1

1 pts

Find the derivative of the function $f(x) = \frac{1}{\sqrt{x}} - \frac{1}{\sqrt[5]{x^3}}$

- $\frac{2}{5x^{4/5}} + \frac{1}{2x^{3/2}}$
- $\frac{2}{x^{3/5}} + \frac{1}{2x^{1/2}}$
- $\frac{3}{5x^{8/5}} - \frac{1}{2x^{3/2}}$
- $\frac{3}{5x^{8/5}} - \frac{1}{3x^{2/3}}$

Question 2

1 pts

Find f' in terms of f and g' for $f(x) = x^2 g(x^2)$ with $x \neq 0$.

- $2xg(x^2) + 2x^3 g'(x^2)$
- $\frac{2}{x} f(x) + 2x^3 g'(x^2)$
- $g'(x^2) + 2x^2 f(x^2)$
- $xf(x) + 2x^3 g'(x)$

Question 3

1 pts

Find the equation of the tangent line to the curve $x^2 + 4xy + y^2 = 13$ at the given point $(2, 1)$.

- $2y = -x + \frac{1}{3}$
- $y = -\frac{4}{5}x + \frac{13}{5}$
- $y = -3x - \frac{1}{13}$
- $y = -3x^2 + 1$

Question 4

1 pts

Solve the equation for x: $e^{e^x} = 2$

- ○ $\ln(-\ln(1/2))$
- ○ $[\ln(2)]^2$
- ○ e^2
- ○ $\ln(\ln(4))$

Question 5

1 pts

Solve the equation for x: $\ln(x+1) + \ln(x-1) = 1$

- ○ 0
- ○ $\sqrt[3]{2+e}$
- ○ $2+e$
- ○ $\sqrt{1+e}$

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