

Name: _____

1. This problem concerns the equation $2 \sin(xy) = \sqrt{2} y^2$

(a) Find $\frac{dy}{dx}$.

(b) Use your answer from part (a) to find the slope of the tangent to the graph of $2 \sin(xy) = \sqrt{2} y^2$ at the point $(\pi/4, 1)$.

Name: _____

QUIZ 13 ♣

MATH 200
October 13, 2021

1. This problem concerns the equation $\ln(xy) = x - y$

(a) Find $\frac{dy}{dx}$.

(b) Use your answer from part (a) to find the slope of the tangent to the graph of $\ln(xy) = x - y$ at the point $(1, 1)$.

Name: _____

QUIZ 13 \diamond

MATH 200
October 13, 2021

1. This problem concerns the equation $xy + \cos(xy) = 1$

(a) Find $\frac{dy}{dx}$.

(b) Use your answer from part (a) to find the slope of the tangent to the graph of $xy + \cos(xy) = 0$ at the point $(1, 0)$.

Name: _____

QUIZ 13 ♠

MATH 200
October 13, 2021

1. This problem concerns the equation $x^4 + 2xy + y^4 = \cos(x)$

(a) Find $\frac{dy}{dx}$.

(b) Use your answer from part (a) above to find the slope of the tangent to the graph of $x^4 + 2xy + y^4 = \cos(x)$ at the point $(0, 1)$.