

Implicit Differentiation Circuit

Name:

Block:

Seat:

Directions: Begin at any cell and call it #1. Take the derivative. Search for your answer. When you find it, mark it #2. Continue in this manner until you complete the circuit. Additional paper may be necessary! No technology is needed!

Answer: $\frac{-4 - 2xy}{x^2 + 10y}$

_____: $-2y^2 + 3 = x^3$

Answer: $\frac{2x^2}{-2y^2 - 1}$

_____: $-x^2y^2 - 3y^3 + 2 = 5x^3$

Answer: $-\frac{3x^2}{4y}$

_____: $3y^3 + 2 = 2x$

Answer: $\frac{-3x^2 - 6xy - 5y}{3x^2 + 5x}$

_____: $-2xy^2 - 3x^2y^3 + 3 = 4x^3$

Answer: $\frac{5x + 3xy^2}{-3yx^2 - 3y^2}$

_____: $4x^2 + 4xy = -5x^3y + 4$

Answer: $\frac{5x + 4xy^3}{-6y^2x^2 - y}$

_____: $4x = -5y^2 - x^2y + 4$

Answer: $\frac{2}{9y^2}$

_____: $-2y^3 - 3y + 4 = 2x^3$

Answer: $\frac{12x^2 + 2y^2 + 6y^3x}{-4xy - 9x^2y^2}$

_____: $-3x^2y^2 - 2y^3 + 5 = 5x^2$

Answer: $\frac{15x^2 + 2xy^2}{-2yx^2 - 9y^2}$

_____: $x^3 + 3x^2y + 5xy = 5$

Answer: $\frac{10x + 5y + 3y^2}{-5x - 6xy}$

_____: $-4x^2y^3 + 2 = 5x^2 + y^2$

Answer: $\frac{-15x^2y - 8x - 4y}{4x + 5x^3}$

_____: $-5xy - 3xy^2 + 5 = 5x^2$