

Answers to Implicit Differentiation

$$1) \frac{dy}{dx} = \frac{-6x - 9xy^3 - 8}{9x^2y^2}$$

$$2) \frac{dy}{dx} = \frac{-5y^2 - 3 - 10x}{10xy}$$

$$3) \frac{dy}{dx} = \frac{-y \cos 2xy + 2x + 1}{x \cos 2xy}$$

$$4) \frac{dy}{dx} = \frac{6x^2 - y^4x - 3y^2}{2x^2y^3 + 6xy}$$

$$5) \frac{dy}{dx} = \frac{-12y + 15}{4x}$$

$$6) \frac{dy}{dx} = \frac{-5 - 9x^2y}{3x^3}$$

$$7) \frac{dy}{dx} = \frac{-x - y^3}{3xy^2}$$

$$8) \frac{dy}{dx} = \frac{-6x^2 - y}{x}$$

$$9) \frac{dy}{dx} = \frac{-2y^3 \cos 4xy^3 + 5x}{6xy^2 \cos 4xy^3}$$

$$10) \frac{dy}{dx} = \frac{-1 - 3x^2y^2 - 2x}{2x^3y}$$

$$11) \frac{dy}{dx} = \frac{-3x^2 - 2y^2}{4xy}$$

$$12) \frac{dy}{dx} = \frac{-9x - 8y^3 \csc 4x^2y^3 \cdot \cot 4x^2y^3}{12xy^2 \csc 4x^2y^3 \cdot \cot 4x^2y^3}$$