

Implicit Differentiation

This is used to find the derivatives of equations where the y-variable cannot be isolated.

(1) Take $\frac{d}{dx}$ of both sides of the equation.

(2) For any term with x the derivative is found normally. For any term with another variable (usually y) remember to use the chain rule and multiply by $\frac{dy}{dx}$.

(3) Collect all $\frac{dy}{dx}$ terms on one side and factor out $\frac{dy}{dx}$.

Divide both sides of the equation to get $\frac{dy}{dx}$ alone.