

Solving Exact Equations

However, as of yet, this gives us no way to really determine if an equation is exact or a way to find the function Ψ that satisfies it. For the first, we have an idea from Calculus 3 again.

Now, how do we solve these equations? The idea is direct integration (basically).

Example. Find the general solution for the differential equation

$$2xy + (x^2 + 4y^3) \frac{dy}{dx} = 0$$