Solving exact equations

We had just seen that given an equation of the form $f(x,y) = c$, we can find a differential equation of the form $M(x,y)dx + N(x,y)dy = 0$ such that $f(x,y) = c$ is a solution to the equation.

Now we ask the following question: Given an exact equation $M(x,y)dx + N(x,y)dy = 0$, how can we solve this? (I.e., how do we find the satisfying $f(x,y) = c$?)

We show how this can be done in some examples in the following video.

Discussion, comments, and examples:

WeBWorK module 06 exercises:

- Problems 2, 3

Relevant Wikipedia articles:

- **Exact equations** (https://en.wikipedia.org/wiki/Exact_differential_equation)