# Given:

# Find:

General solution of the partial differential equation system in 2d.

# Solution:

By inspection, the solution is the bilinear function with as constants.

We compute the 2nd derivatives of to check that it really is a solution to the PDE system.

# Conclusions:

The solution to the regularizing function is the bilinear function in 2d.

# Future Work:

Prove a form of this for n-D dimensions.