

# Reference Solution

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August 12, 2025

## Contents

Solution of the 2D Laplace equation:

$$-\Delta u(x, y) = f(x, y) \quad \text{in } \Omega \quad (1)$$

$$u(x, y) = 0 \quad \text{on } \Gamma_D \quad (2)$$

where  $f(x, y) = 2 * (x + y - x^2 - y^2)$  the analytical solution is

$$u(x, y) = x * (1 - x) * y * (1 - y)$$