

2D Trapezoidal Method

We extend the 1D method to 2D.

$$\Rightarrow \frac{h}{2} \Rightarrow \frac{h_x}{2} \cdot \frac{h_y}{2}.$$

$$\uparrow f(a) + f(b) \rightarrow f(a, c) + f(a, d) \leftarrow \text{lower } x \text{ or } y.$$

$$+ f(b, c) + f(b, d) \leftarrow \text{higher } x \text{ or } y.$$

And similarly for the rest of the equation. We replace our indices in a similar way.