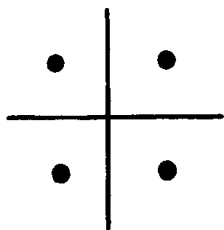
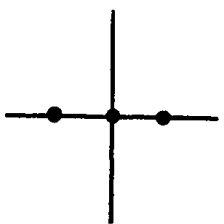


25.3.22



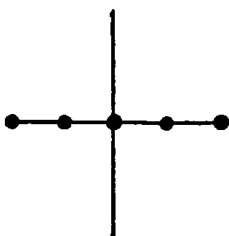
$$\frac{\partial f_{0,0}}{\partial x} = \frac{1}{4h} (f_{1,1} - f_{-1,1} + f_{1,-1} - f_{-1,-1}) + O(h^2)$$

25.3.23



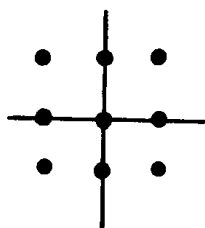
$$\frac{\partial^2 f_{0,0}}{\partial x^2} = \frac{1}{h^2} (f_{1,0} - 2f_{0,0} + f_{-1,0}) + O(h^2)$$

25.3.24



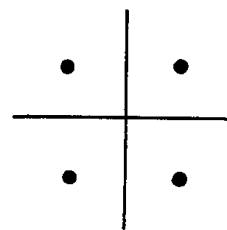
$$\frac{\partial^2 f_{0,0}}{\partial x^2} = \frac{1}{12h^2} (-f_{2,0} + 16f_{1,0} - 30f_{0,0} + 16f_{-1,0} - f_{-2,0}) + O(h^4)$$

25.3.25



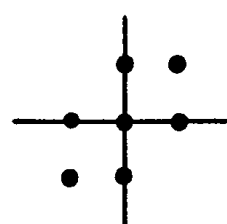
$$\frac{\partial^2 f_{0,0}}{\partial x^2} = \frac{1}{3h^2} (f_{1,1} - 2f_{0,1} + f_{-1,1} + f_{1,0} - 2f_{0,0} + f_{-1,0} + f_{1,-1} - 2f_{0,-1} + f_{-1,-1}) + O(h^2)$$

25.3.26



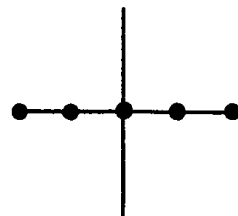
$$\frac{\partial^2 f_{0,0}}{\partial x \partial y} = \frac{1}{4h^2} (f_{1,1} - f_{1,-1} - f_{-1,1} + f_{-1,-1}) + O(h^2)$$

25.3.27



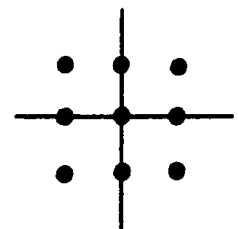
$$\frac{\partial^2 f_{0,0}}{\partial x \partial y} = \frac{-1}{2h^2} (f_{1,0} + f_{-1,0} + f_{0,1} + f_{0,-1} - 2f_{0,0} - f_{1,1} - f_{-1,-1}) + O(h^2)$$

25.3.28



$$\frac{\partial^4 f_{0,0}}{\partial x^4} = \frac{1}{h^4} (f_{2,0} - 4f_{1,0} + 6f_{0,0} - 4f_{-1,0} + f_{-2,0}) + O(h^2)$$

25.3.29



$$\frac{\partial^4 f_{0,0}}{\partial x^2 \partial y^2} = \frac{1}{h^4} (f_{1,1} + f_{-1,1} + f_{1,-1} + f_{-1,-1} - 2f_{1,0} - 2f_{-1,0} - 2f_{0,1} - 2f_{0,-1} + 4f_{0,0}) + O(h^2)$$