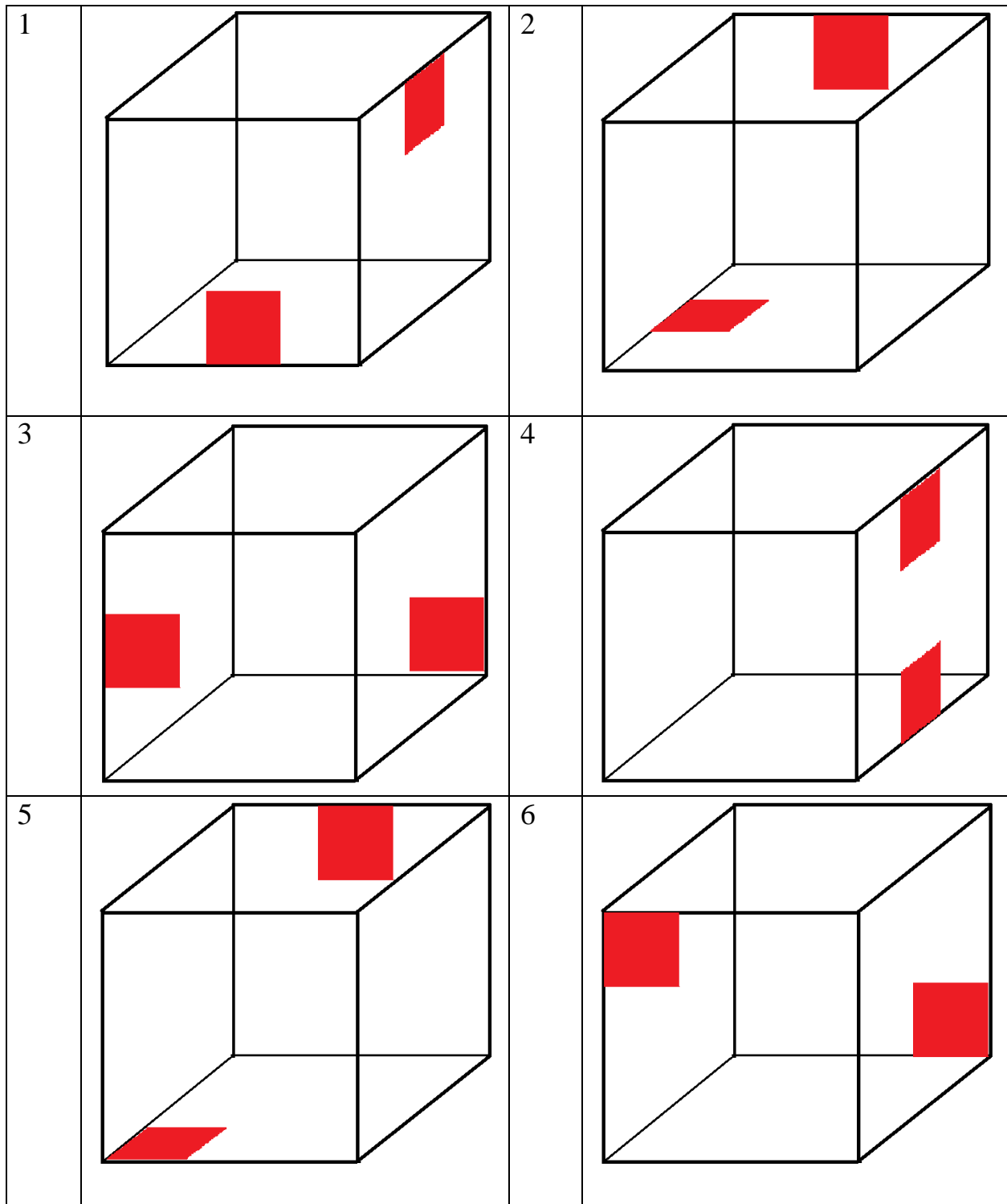
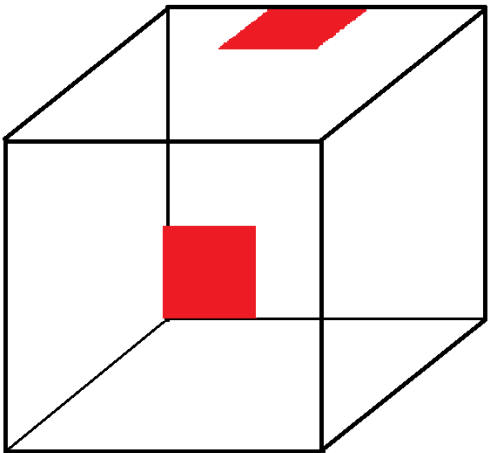
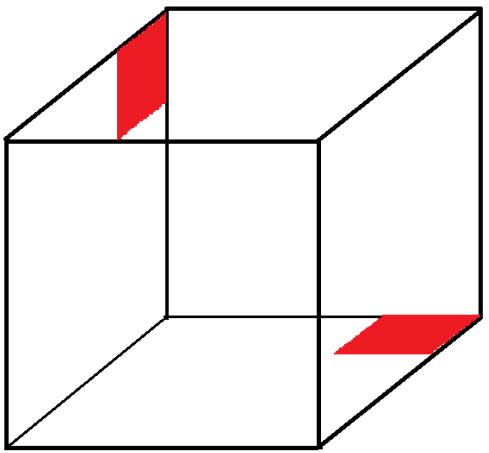
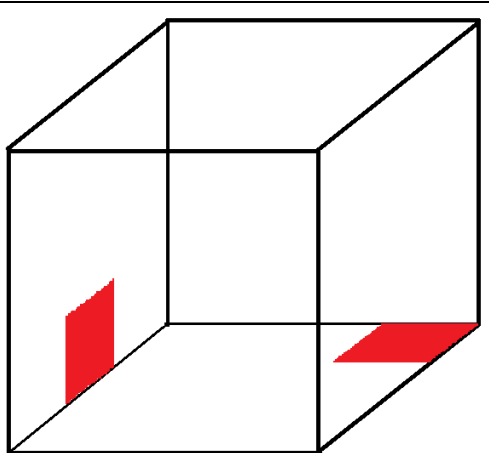
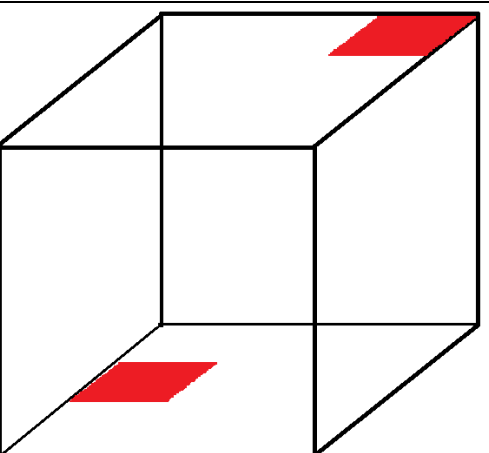
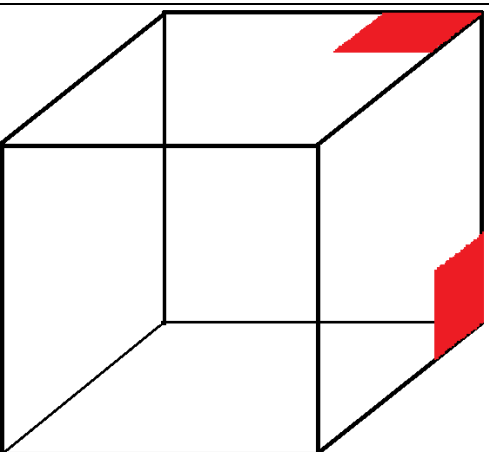
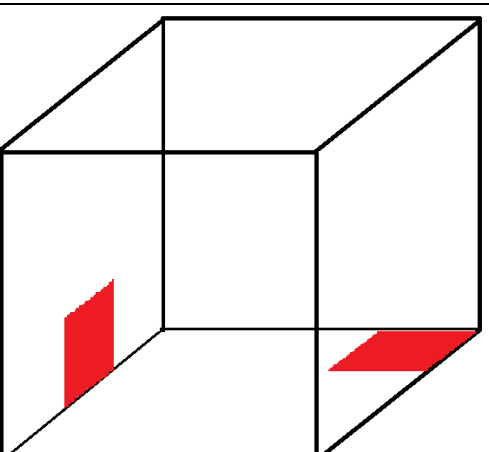


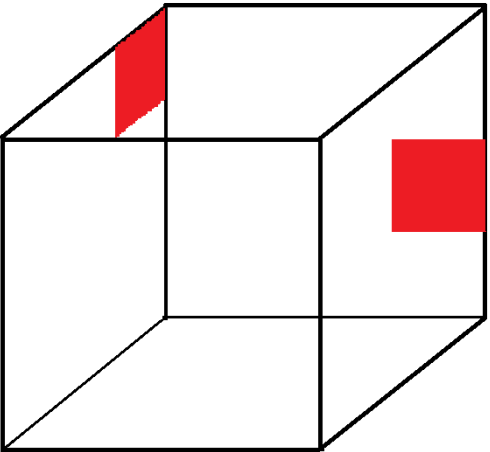
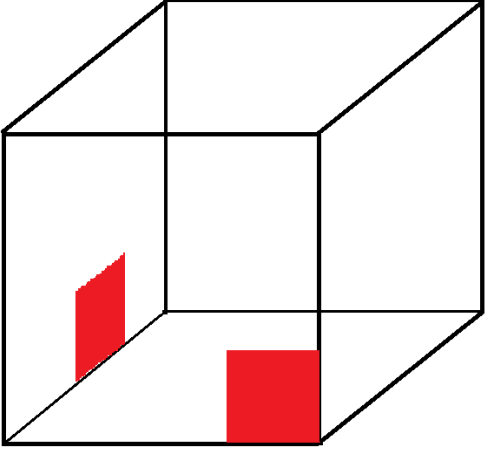
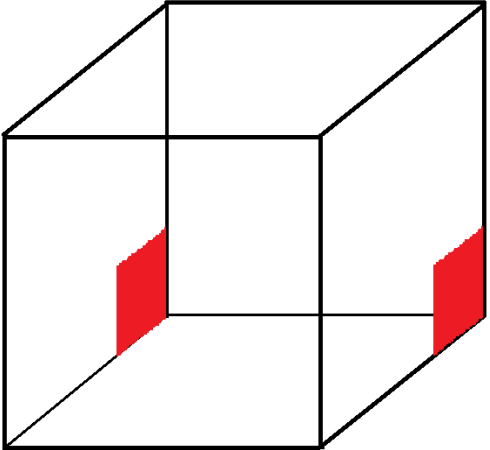
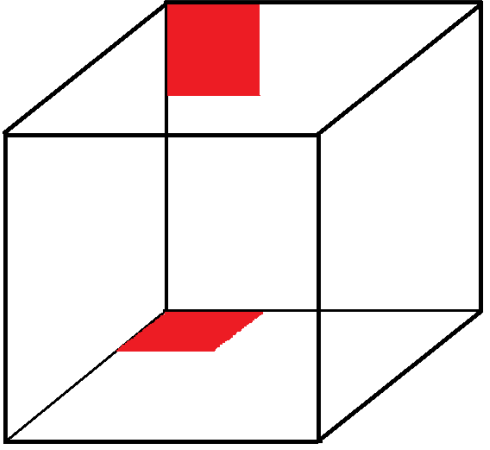
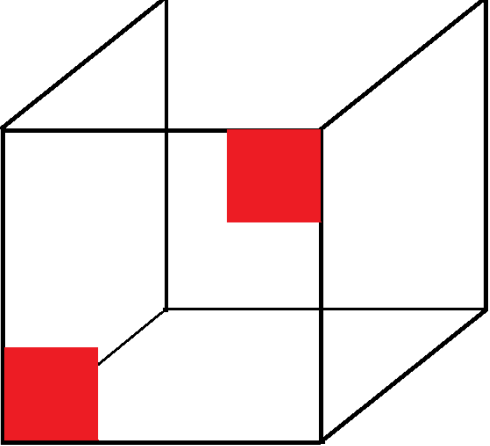
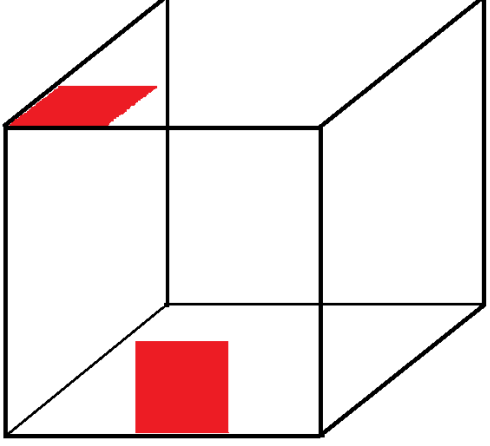
Find numerical solution with fractional step and alternating direction methods of three-dimensional heat equation

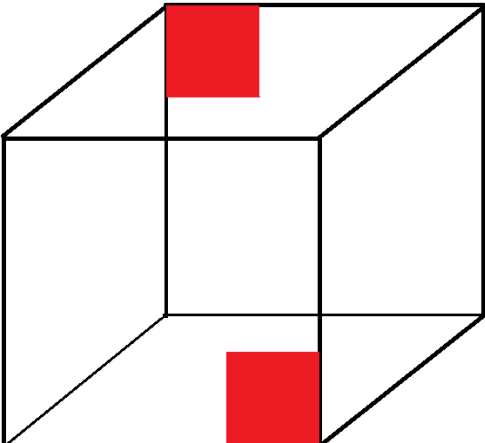
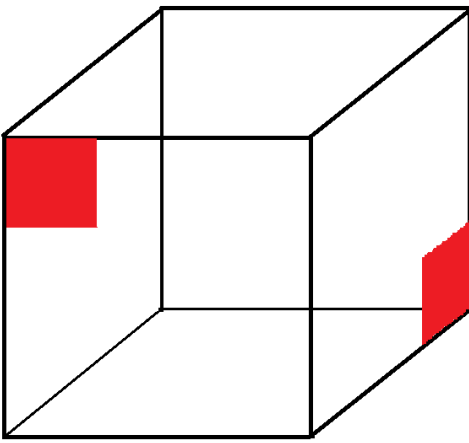
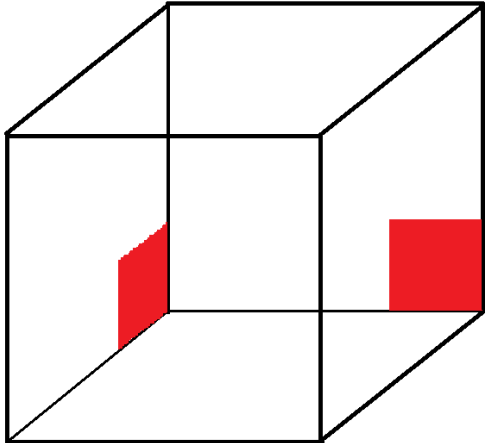
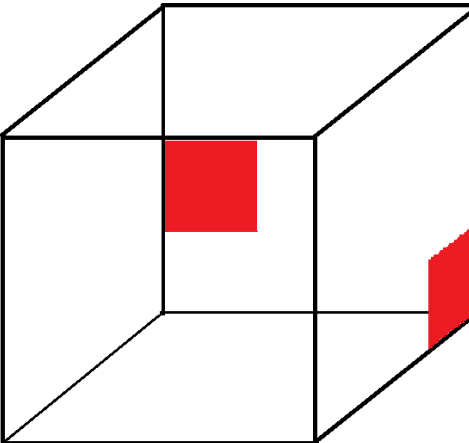
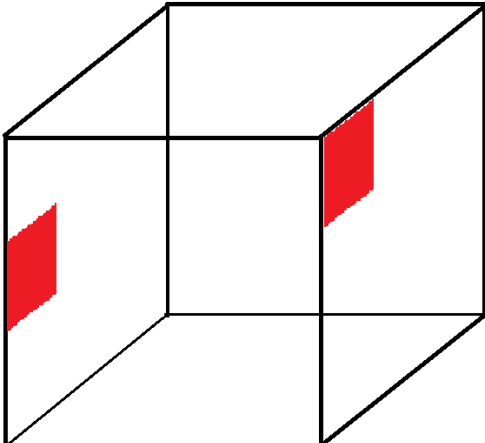
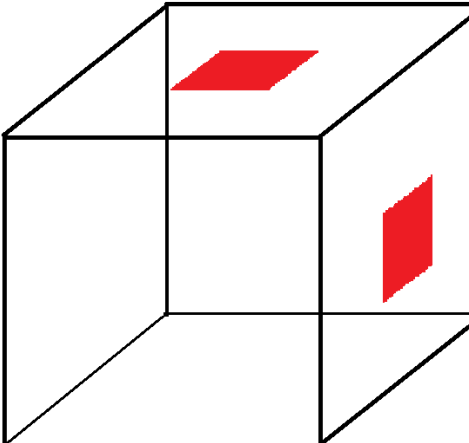
$$\frac{\partial U}{\partial t} = \alpha^2 \left(\frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} + \frac{\partial^2 U}{\partial z^2} \right)$$

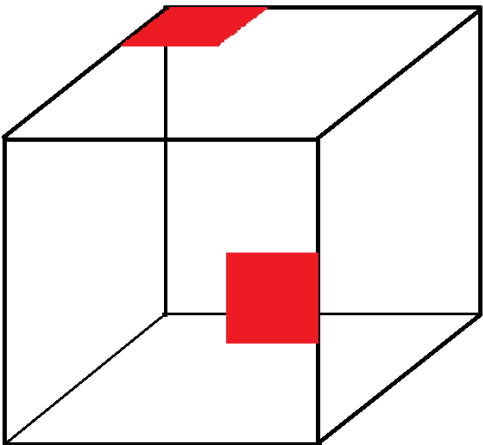
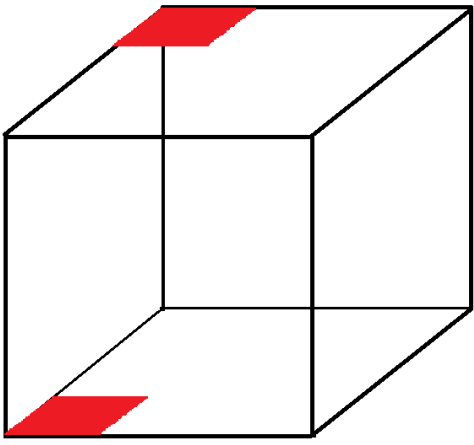
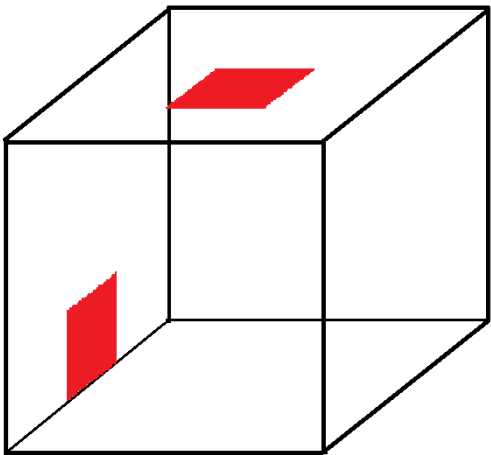
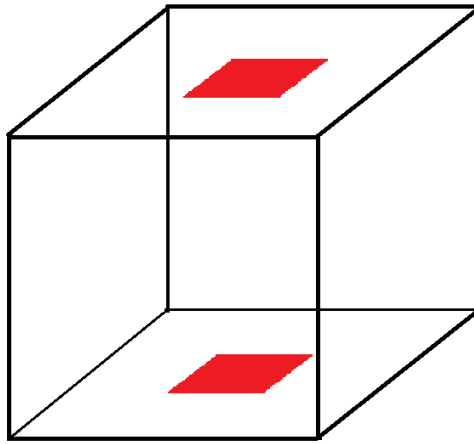
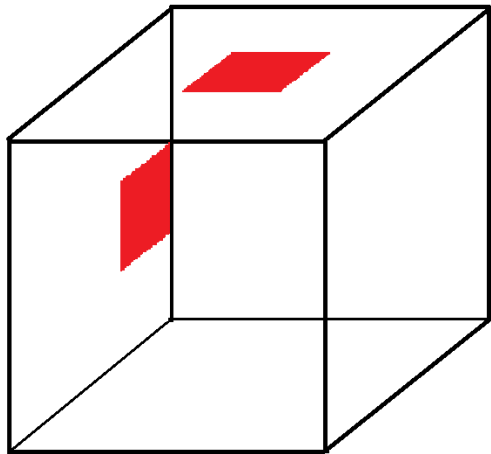
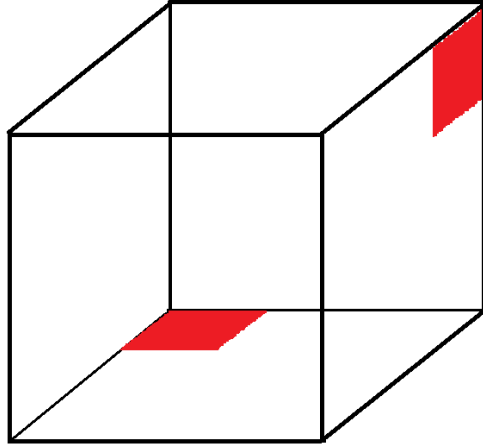
with the following boundary conditions:

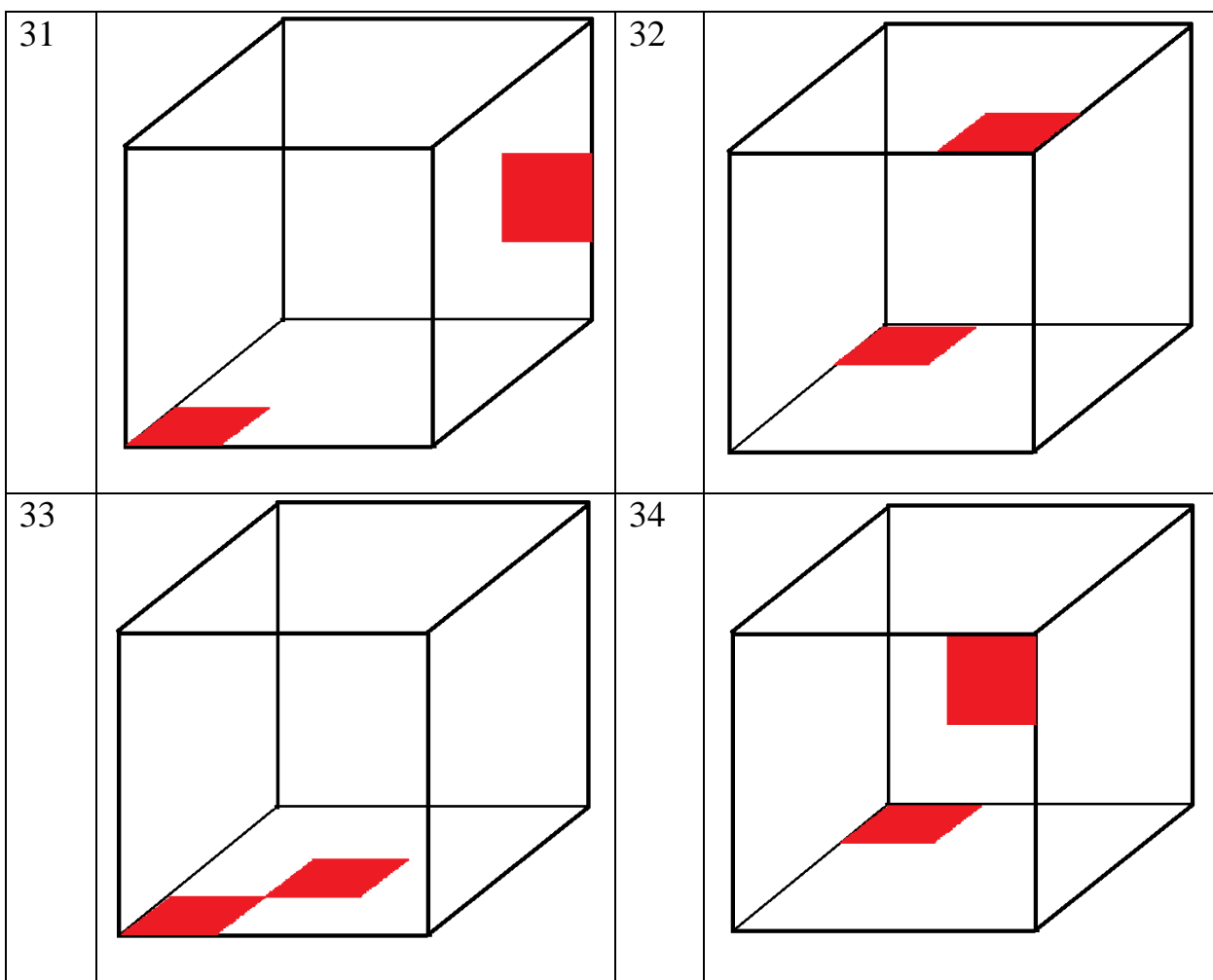


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Draw graphs for different time moments, at least 3 moments.