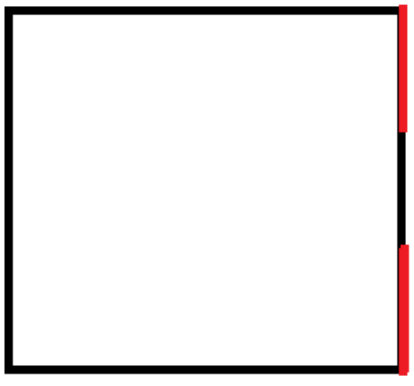
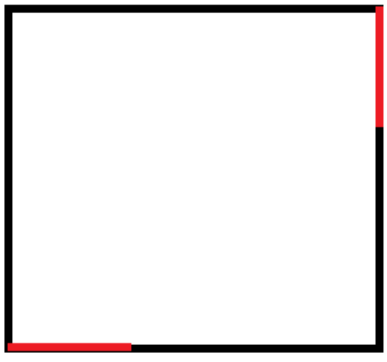
Find numerical solution with fractional step and alternating direction methods of two-dimensional heat equation

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

with the following boundary conditions:

1		2	
3		4	
5		6	

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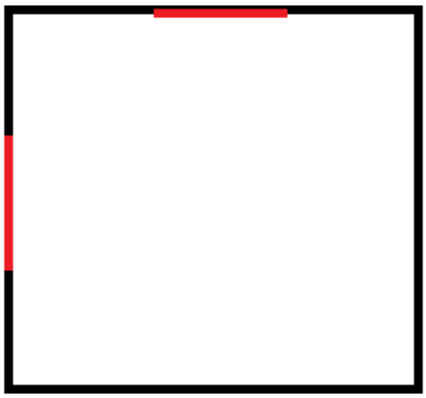
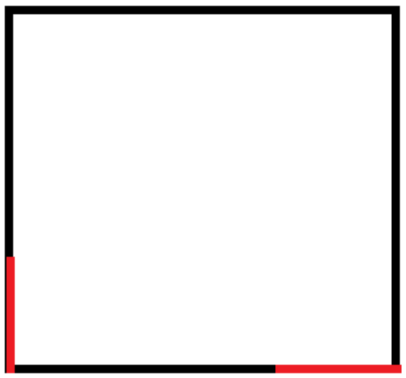
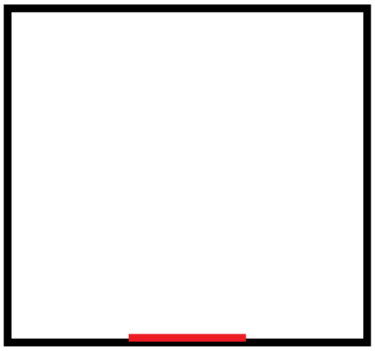
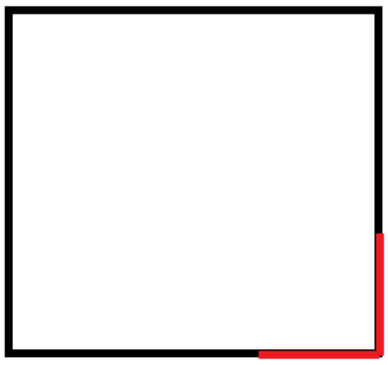
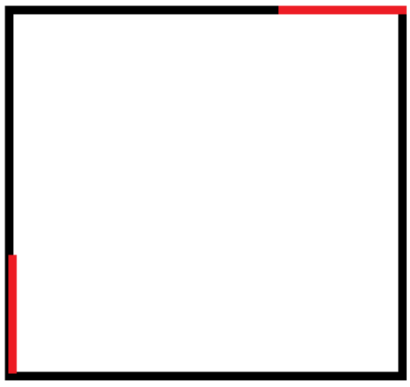
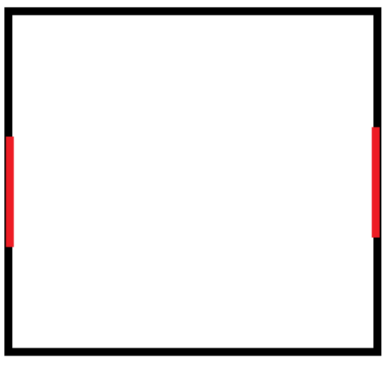
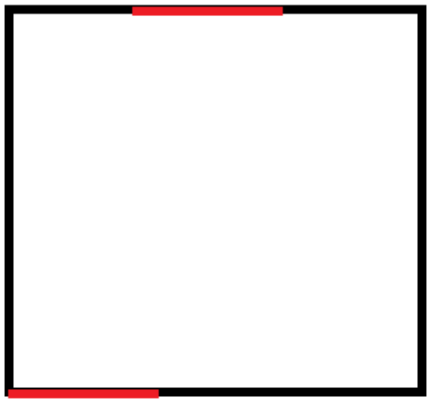
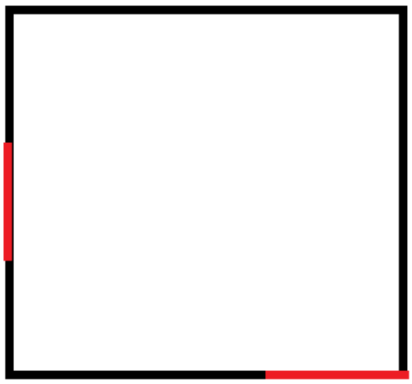
9		10	
11		12	
13		14	

15		16	
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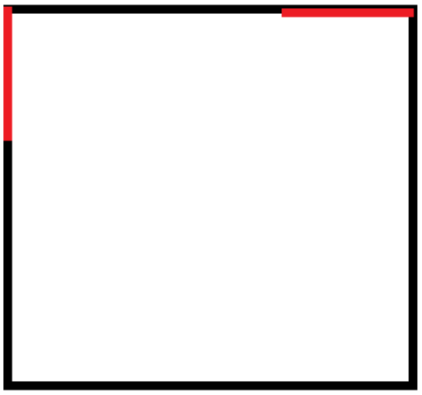
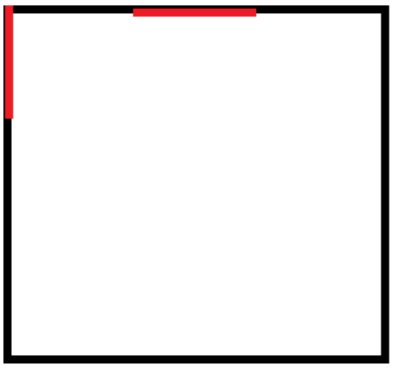
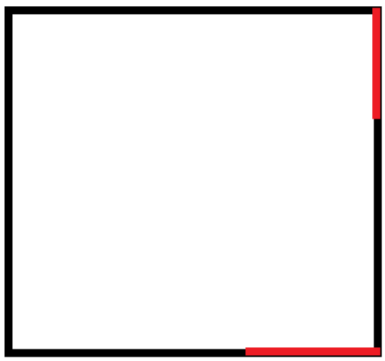
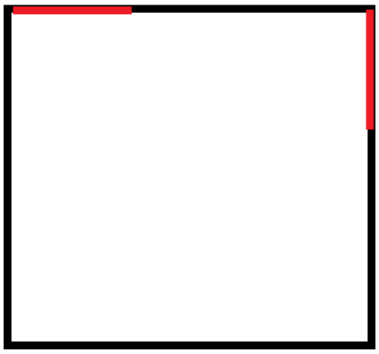
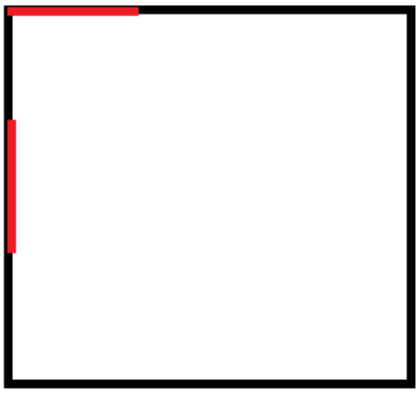
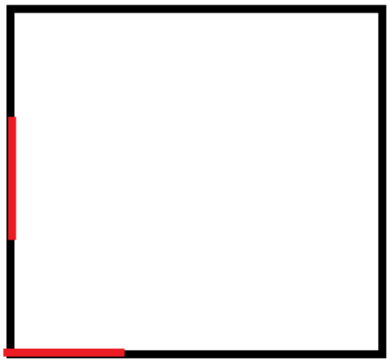
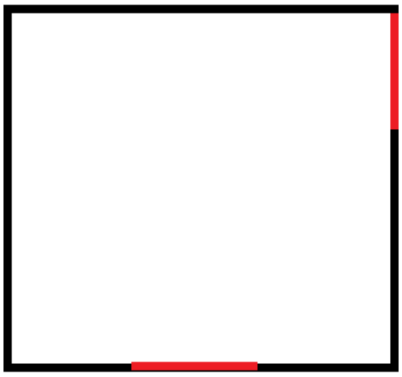
19		20	

21		22	
23		24	
25		26	

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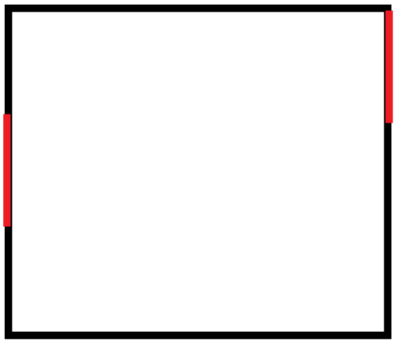
29		30	
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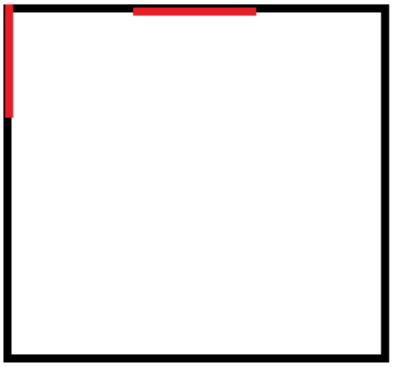
33		34	

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