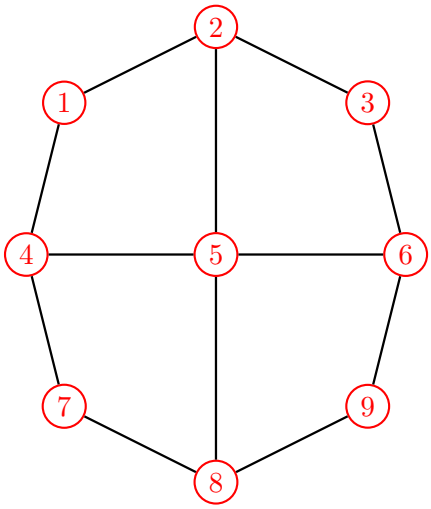

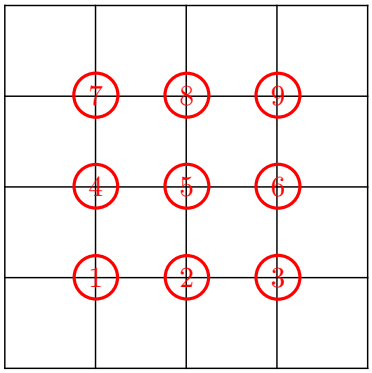

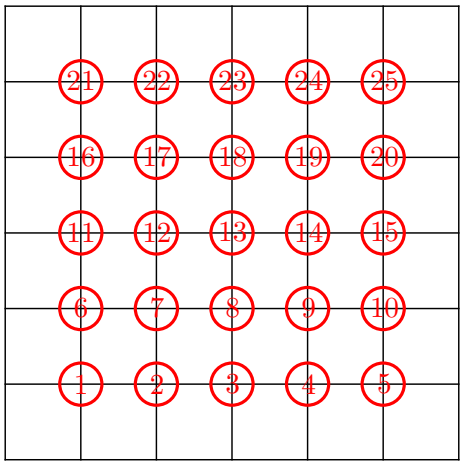

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1	2	3	4	5

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12	13	19	17	16
25	24	9	20	21
2	4	22	8	6
1	3	23	7	5

2	4	25	8	6
1	3	24	7	5
19	20	23	18	17
9	11	22	16	13
10	12	21	15	14

15	10	6	3	1
19	14	9	5	2
22	18	13	8	4
24	21	17	12	7
25	23	20	16	11

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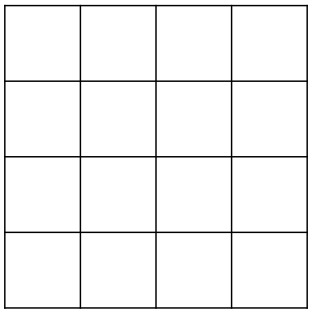
1	2	4	7	11



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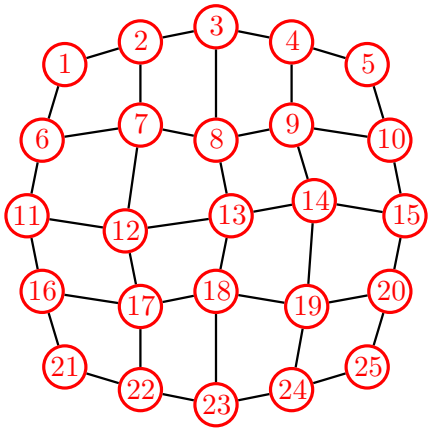
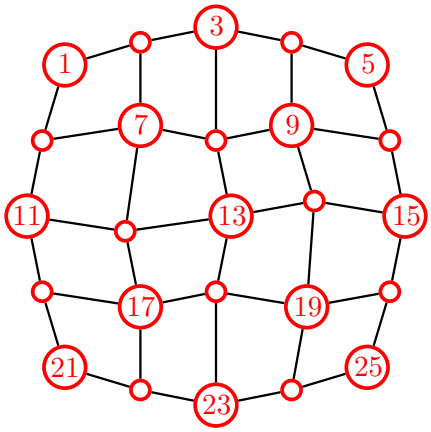
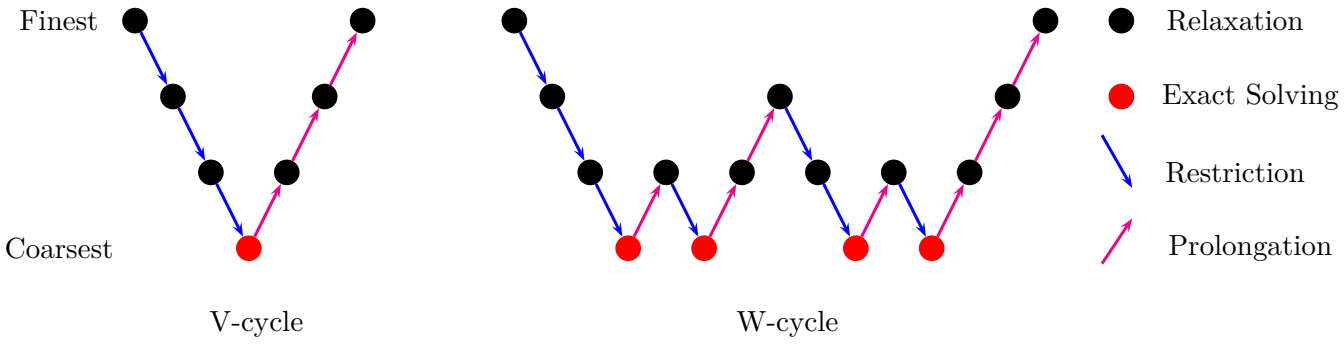
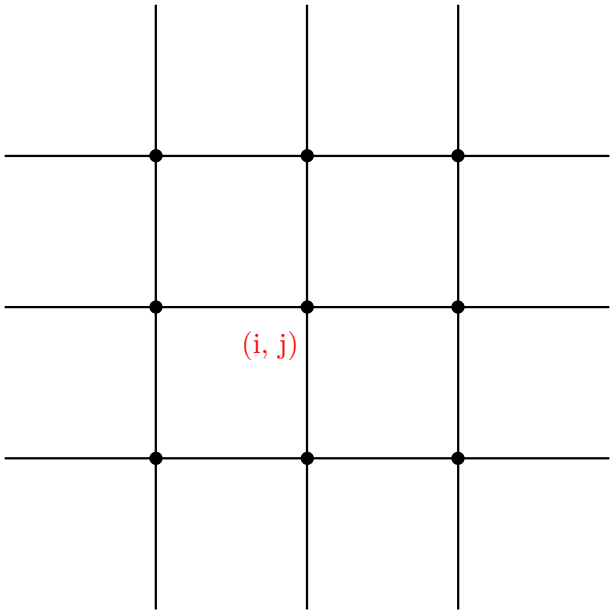


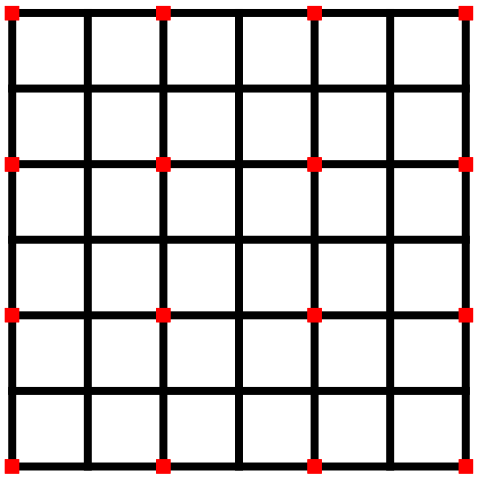


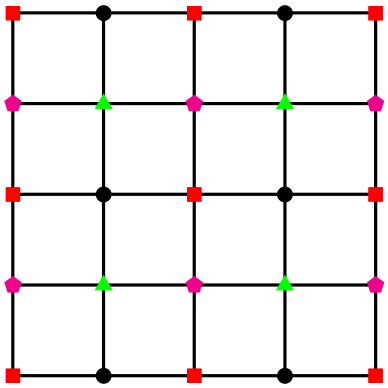

Finest
Coarsest
V-cycle
W-cycle
Relaxation
Exact Solving
Restriction
Prolongation

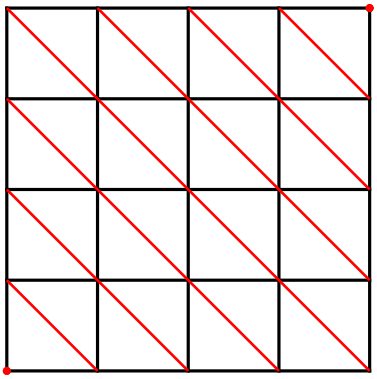

(i, j)

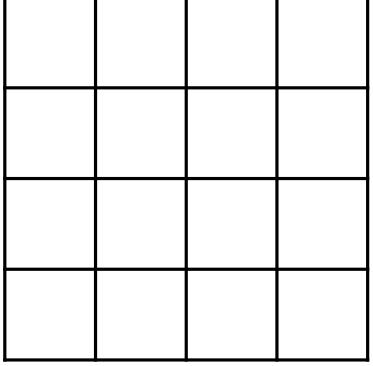
$$[L_h]_{i,j} = \frac{1}{h^2} \begin{bmatrix} & -1 & \\ -1 & 4 & -1 \\ & -1 & \end{bmatrix} \tag{1}$$

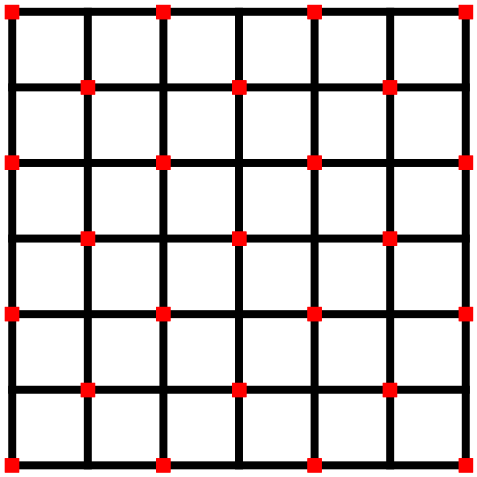
$$[L_h]_{i,j} = \frac{1}{h^2} \begin{bmatrix} & -\varepsilon & \\ -1 & 2(1+\varepsilon) & -1 \\ & -\varepsilon & \end{bmatrix} \tag{2}$$

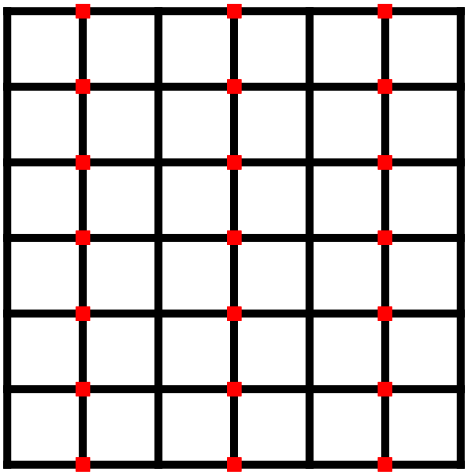


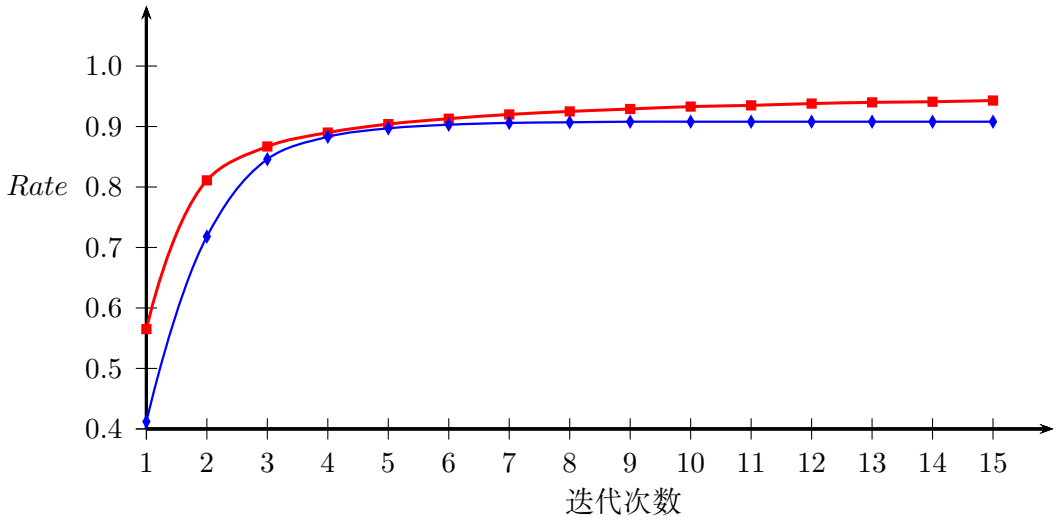








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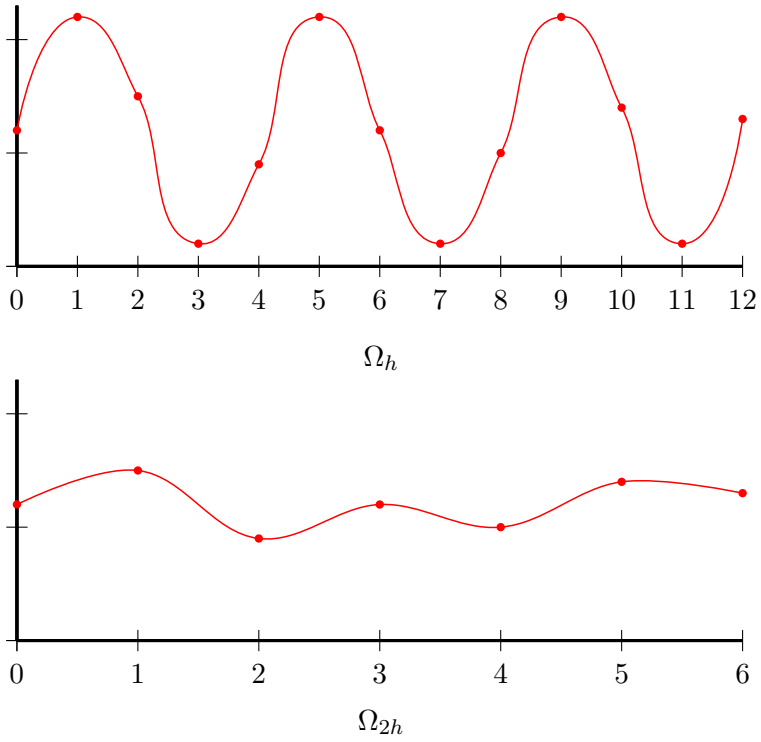
迭代次数


0 1 2 3 4 5 6 7 8 9 10 11 12
Ω_h
0 1 2 3 4 5 6
Ω_{2h}