

Vorlesung „Digitale Spiele“



TU Darmstadt, Sommersemester 2008

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Slide 1

Fallstudie „Einstein würfelt nicht“

ein Spiel von Ingo Althöfer, Uni Jena

Slide 2



kurze Erklärung
des Spiels

Ingo Althöfer

1	6	3		
5	2			
4				2
			3	1
		4	6	5

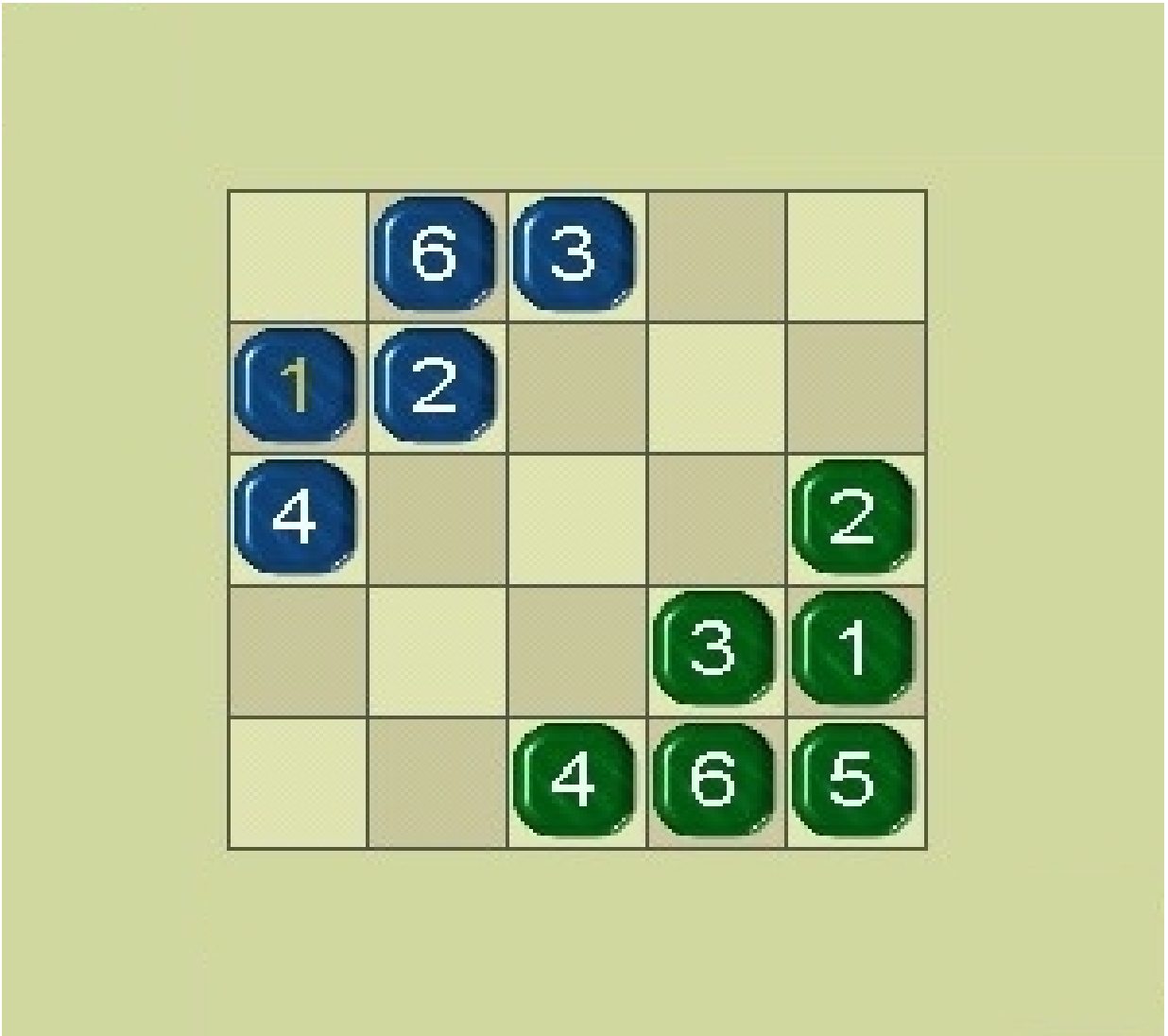
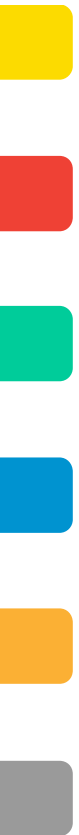
Theo van der Storm

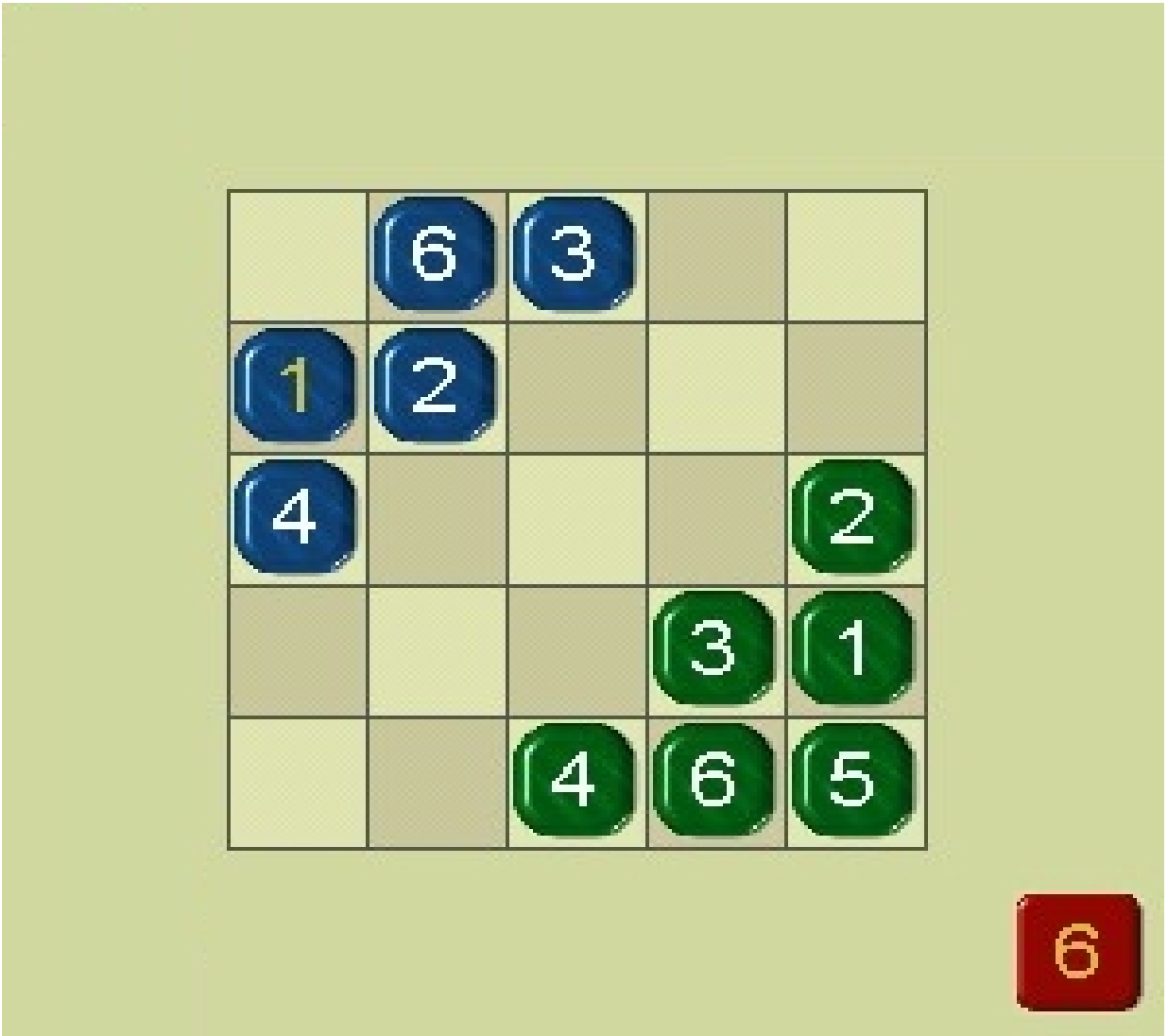
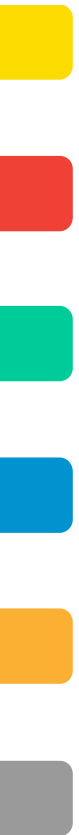
Slide 4

1

1	6	3		
5	2			
4				2
			3	1
		4	6	5

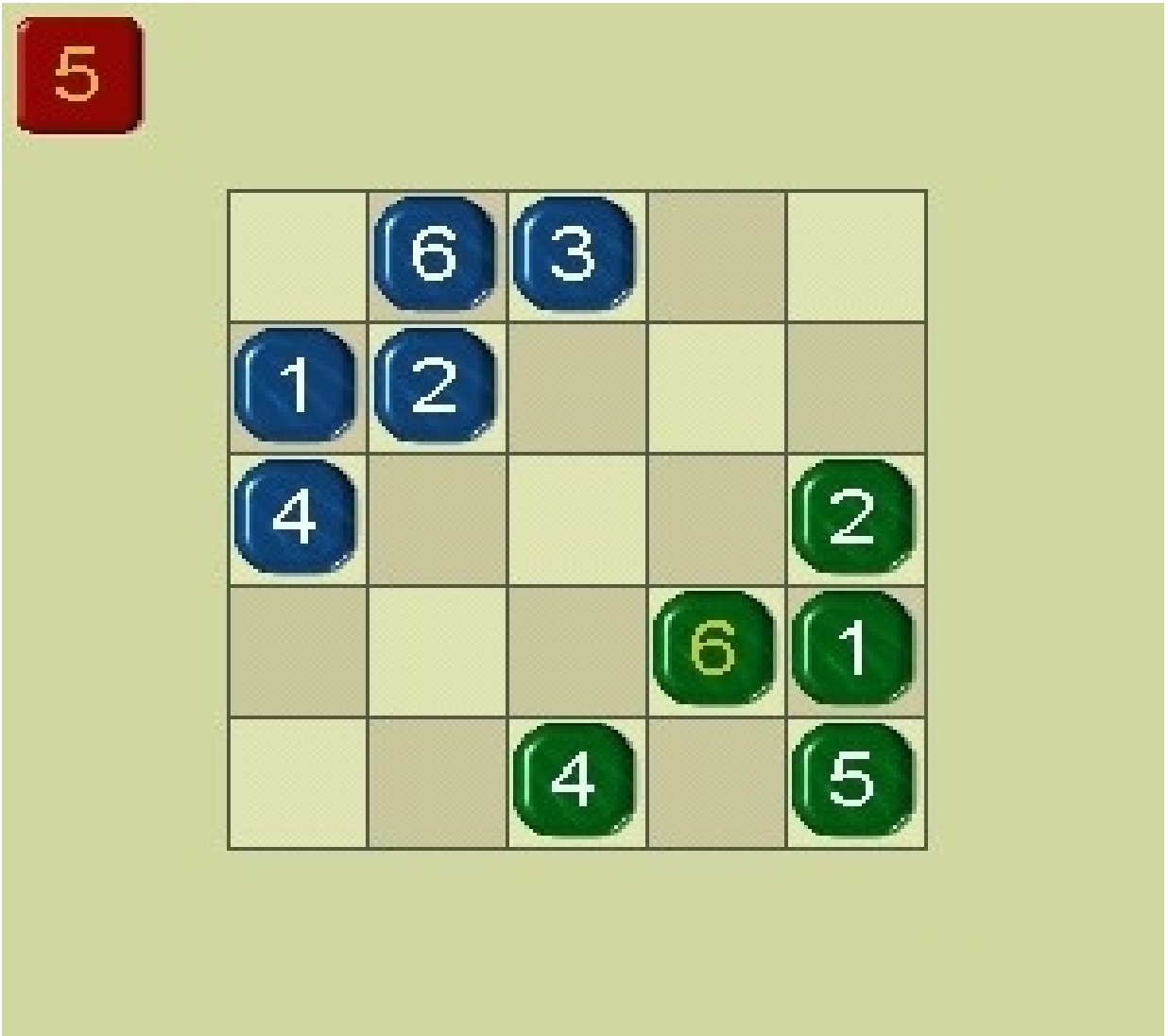
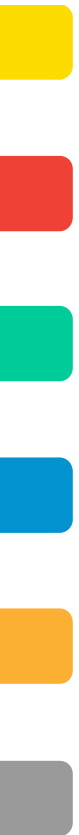
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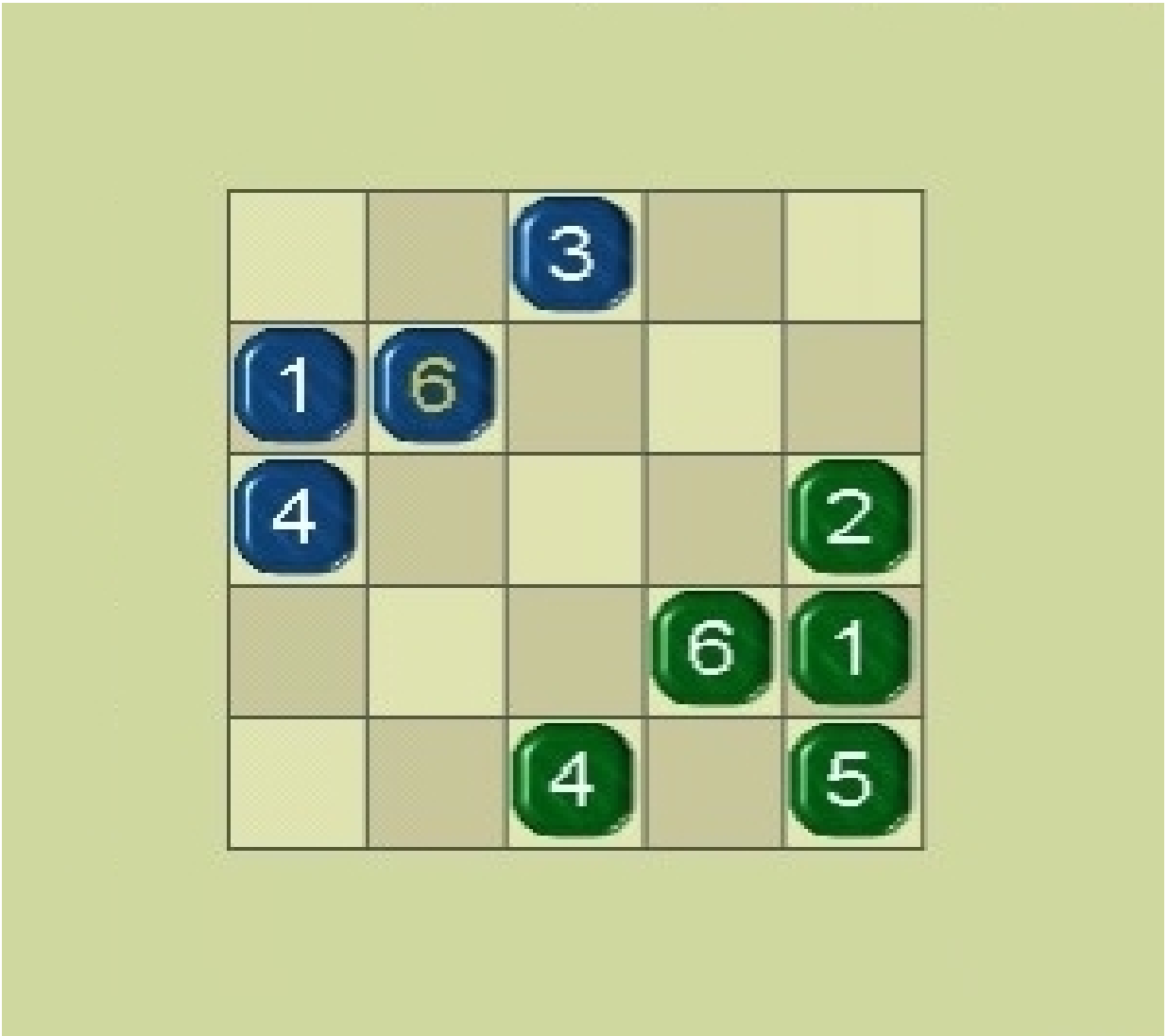
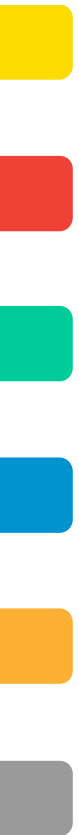


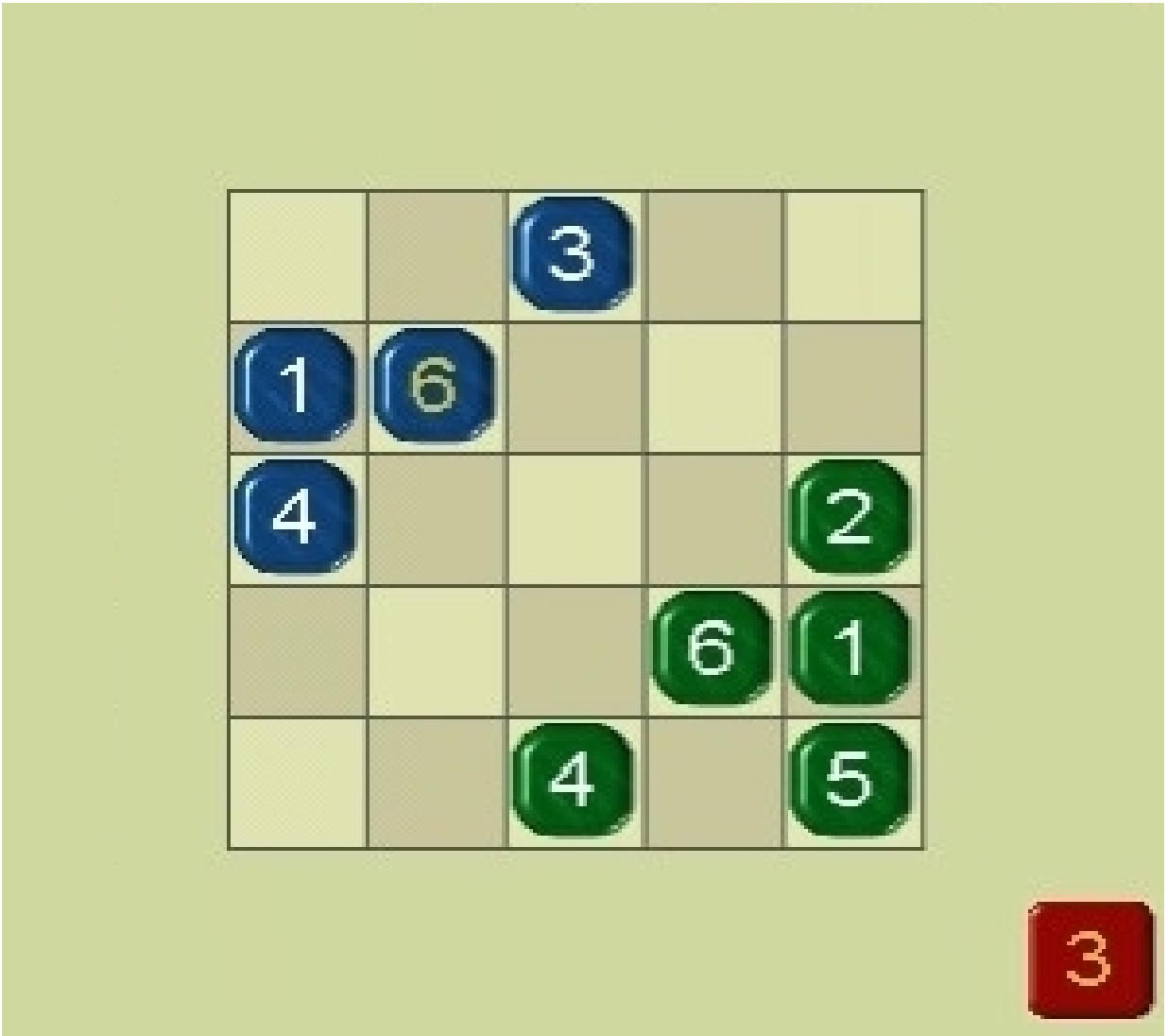
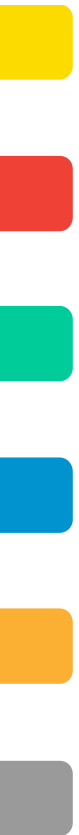




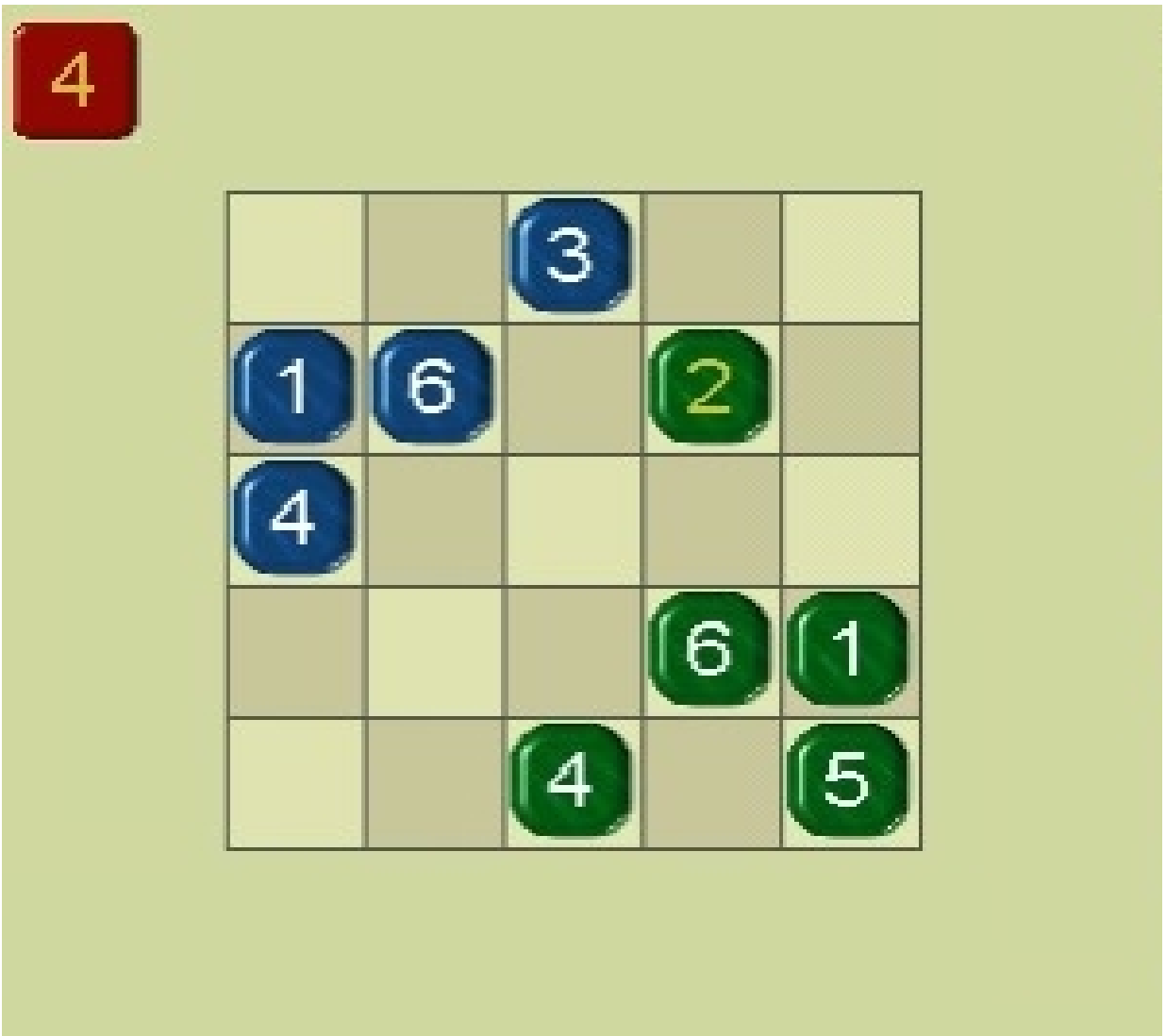
Slide 8



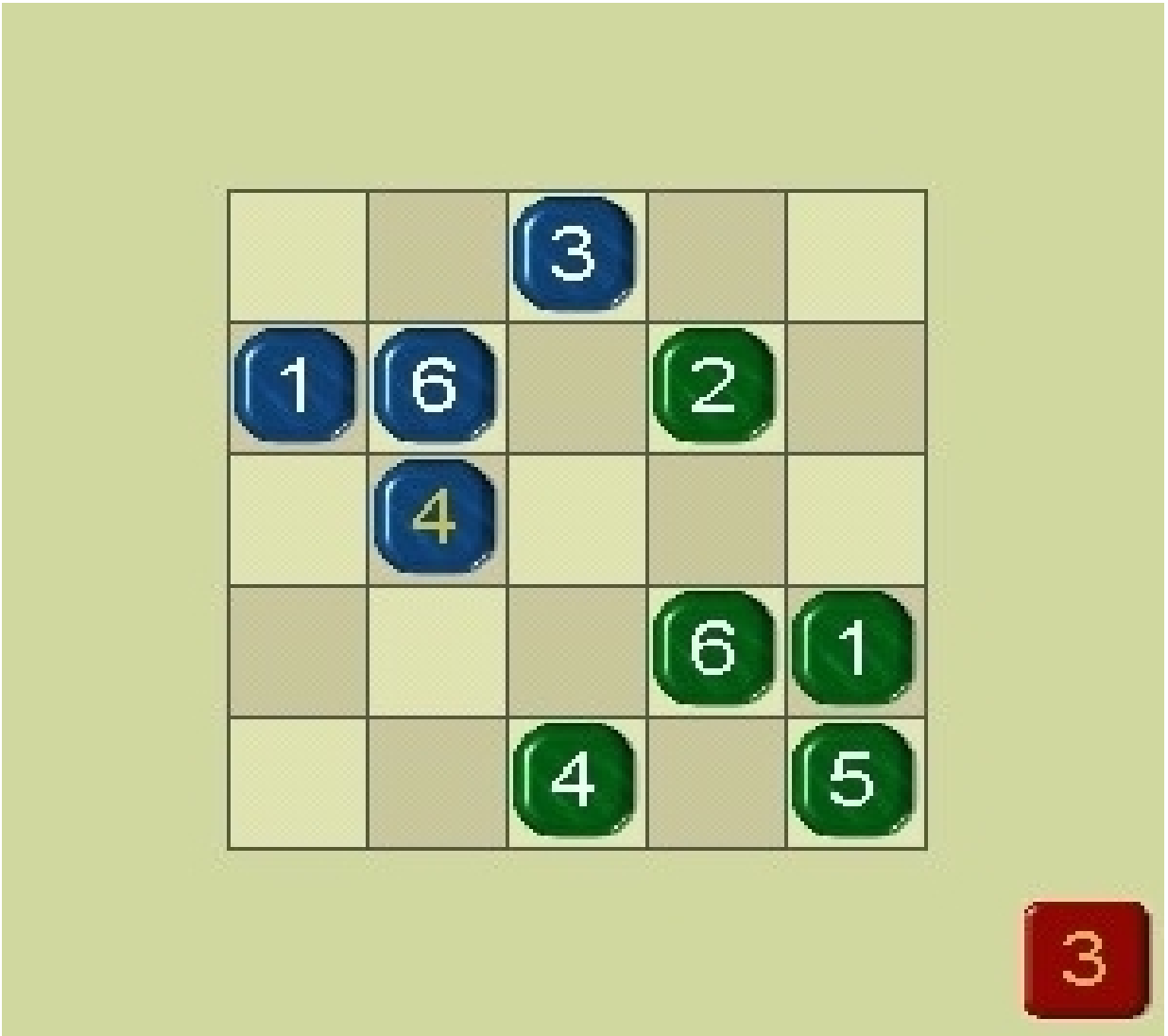
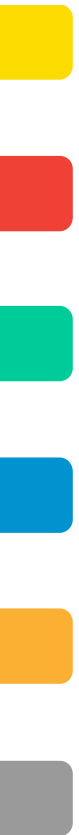


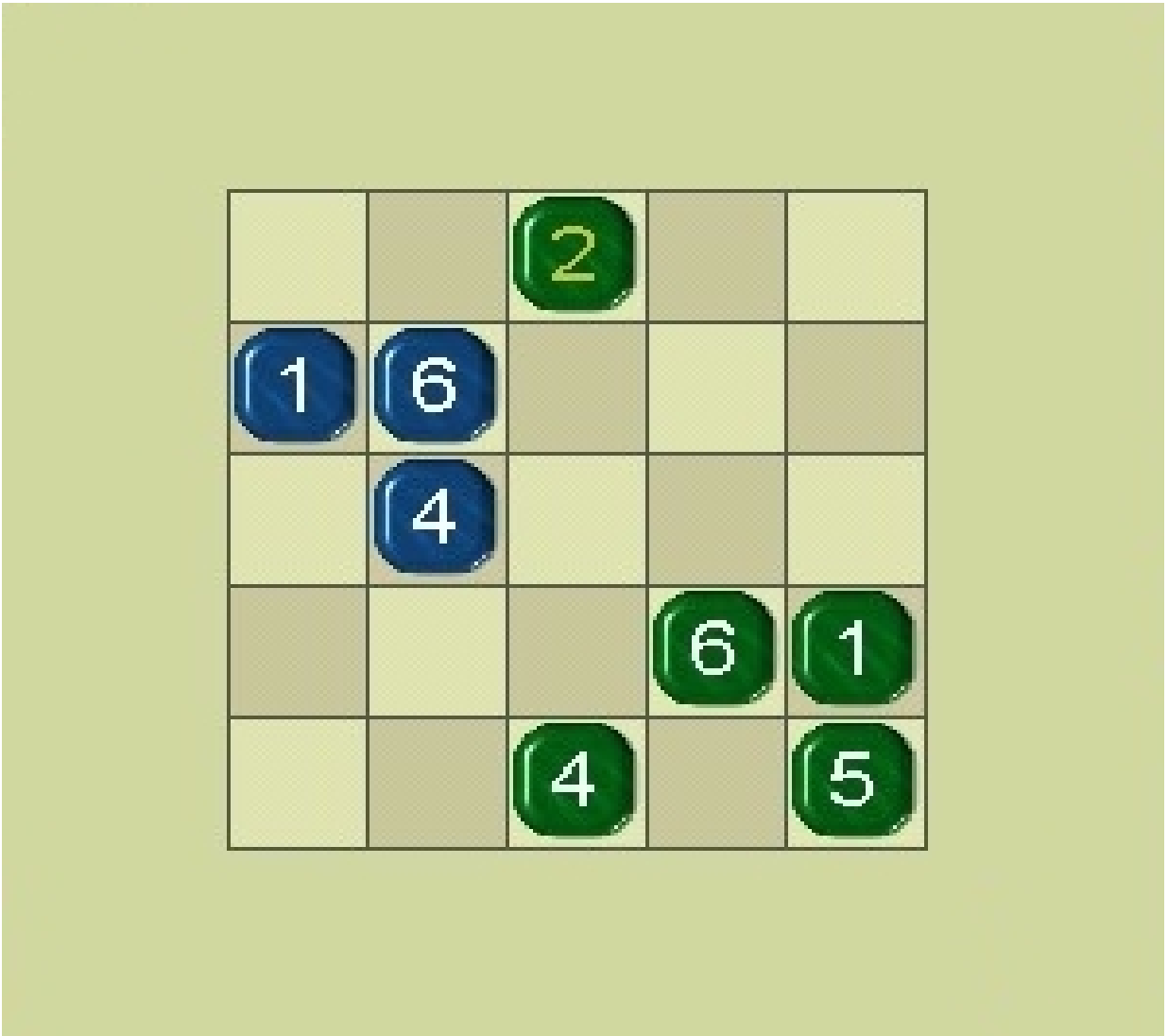
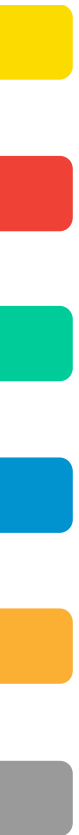






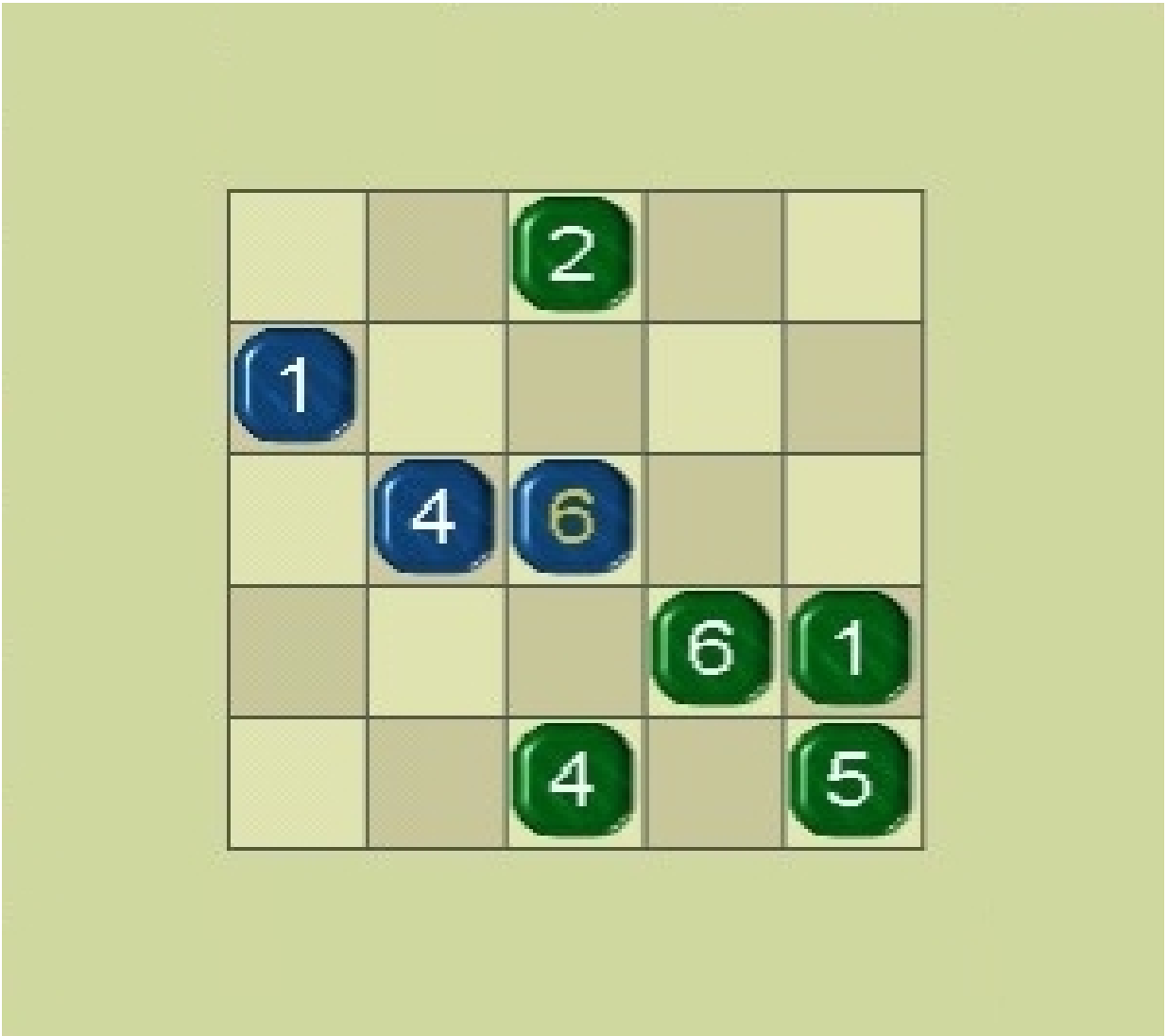
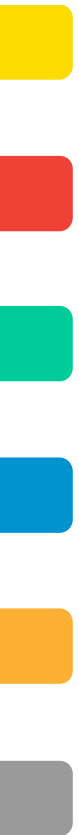


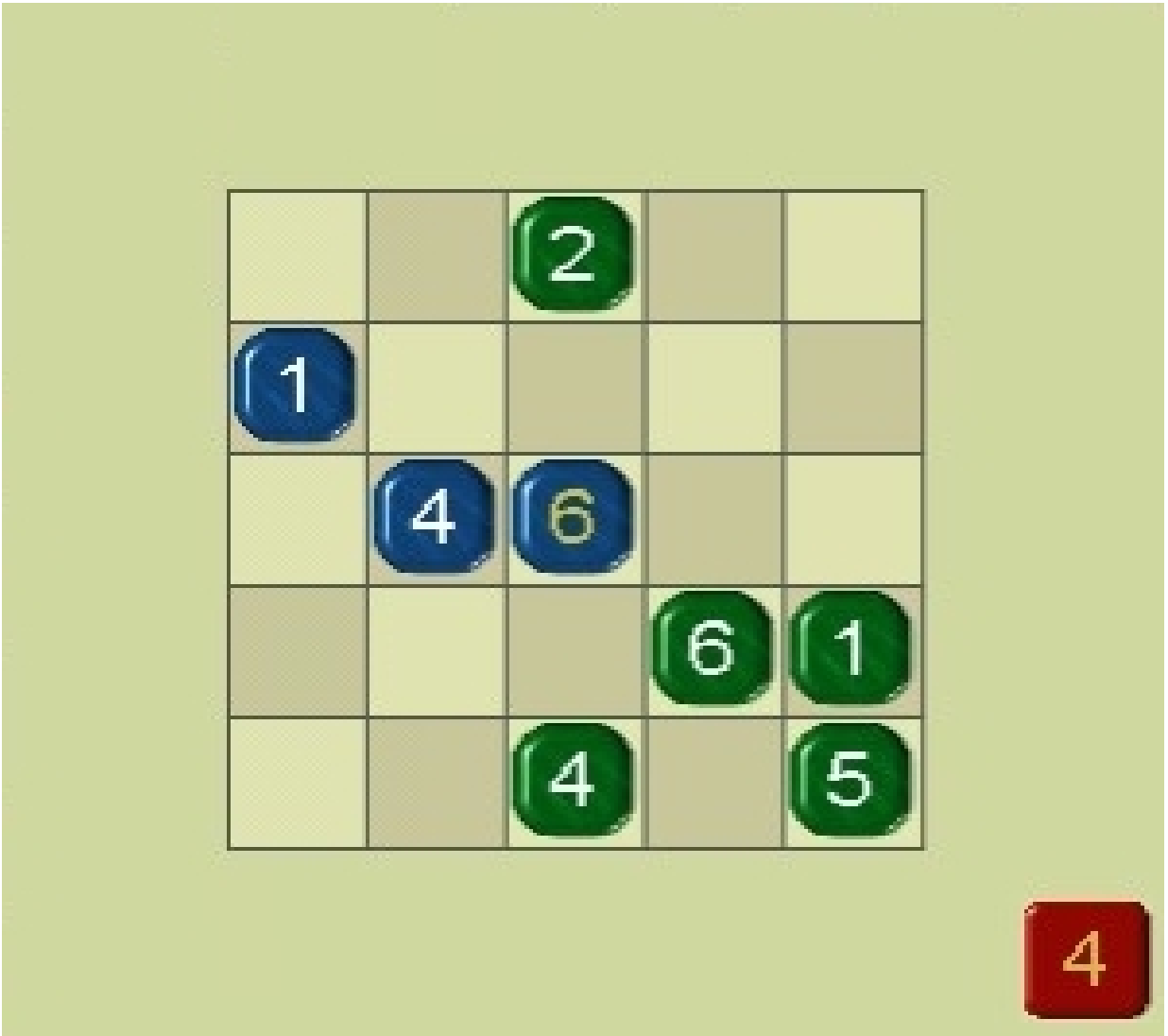
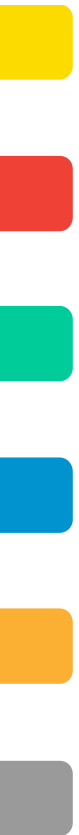


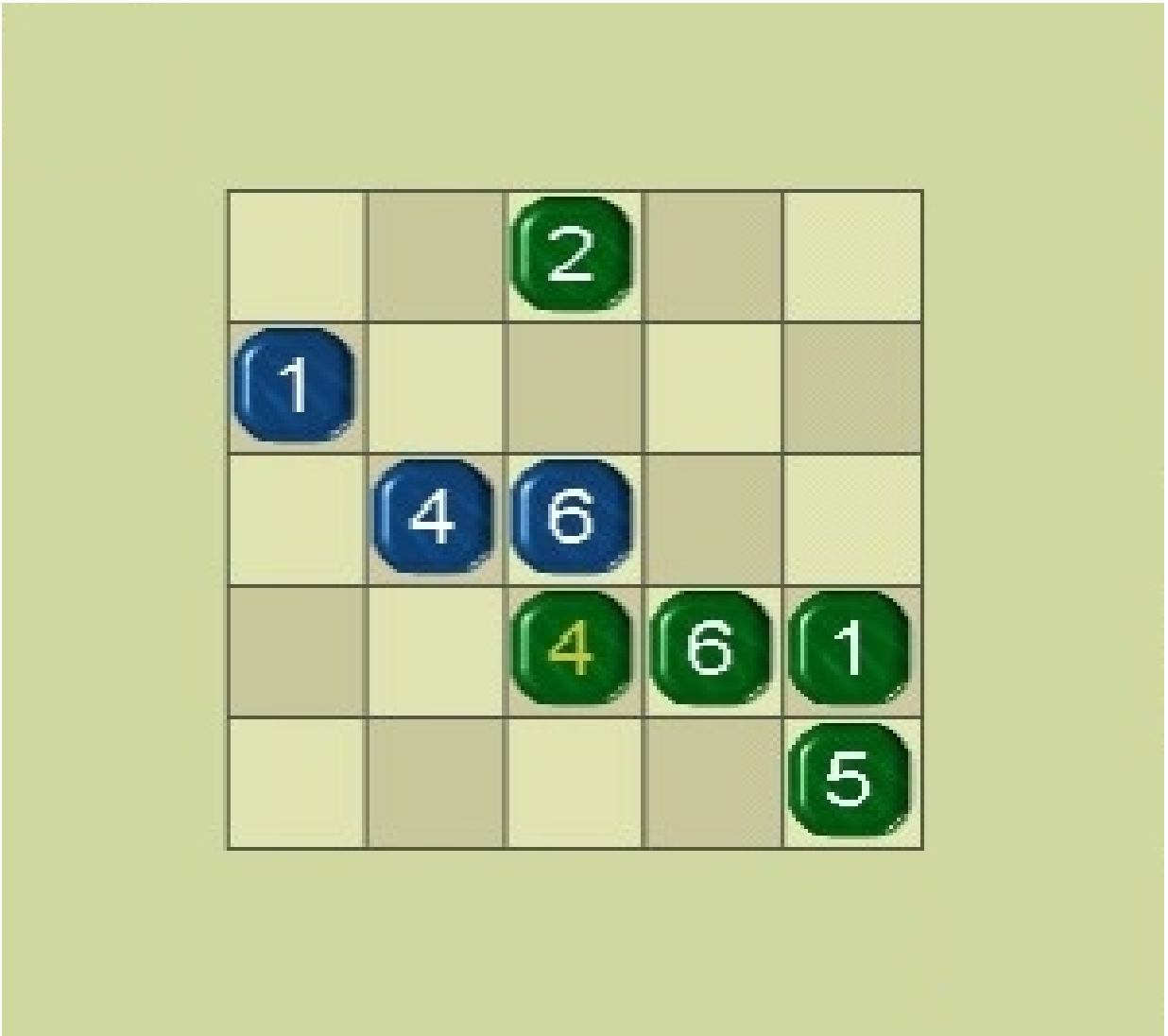
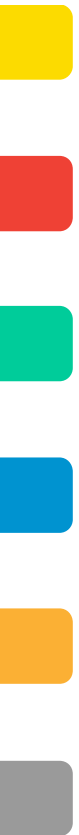


6

		2		
1	6			
	4			
			6	1
		4		5

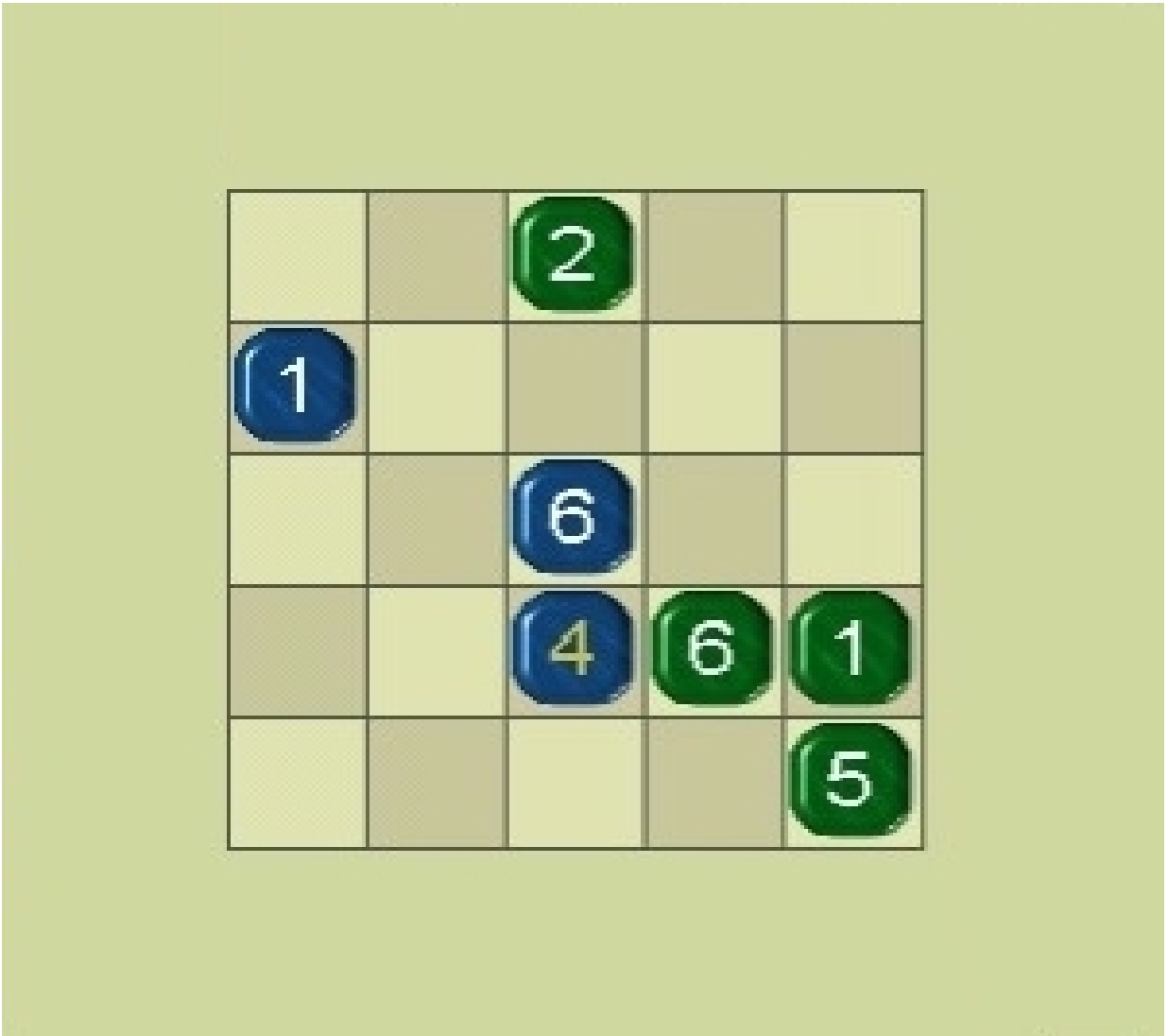
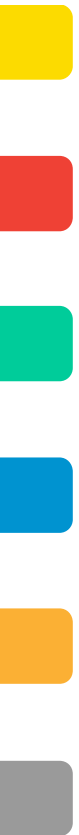


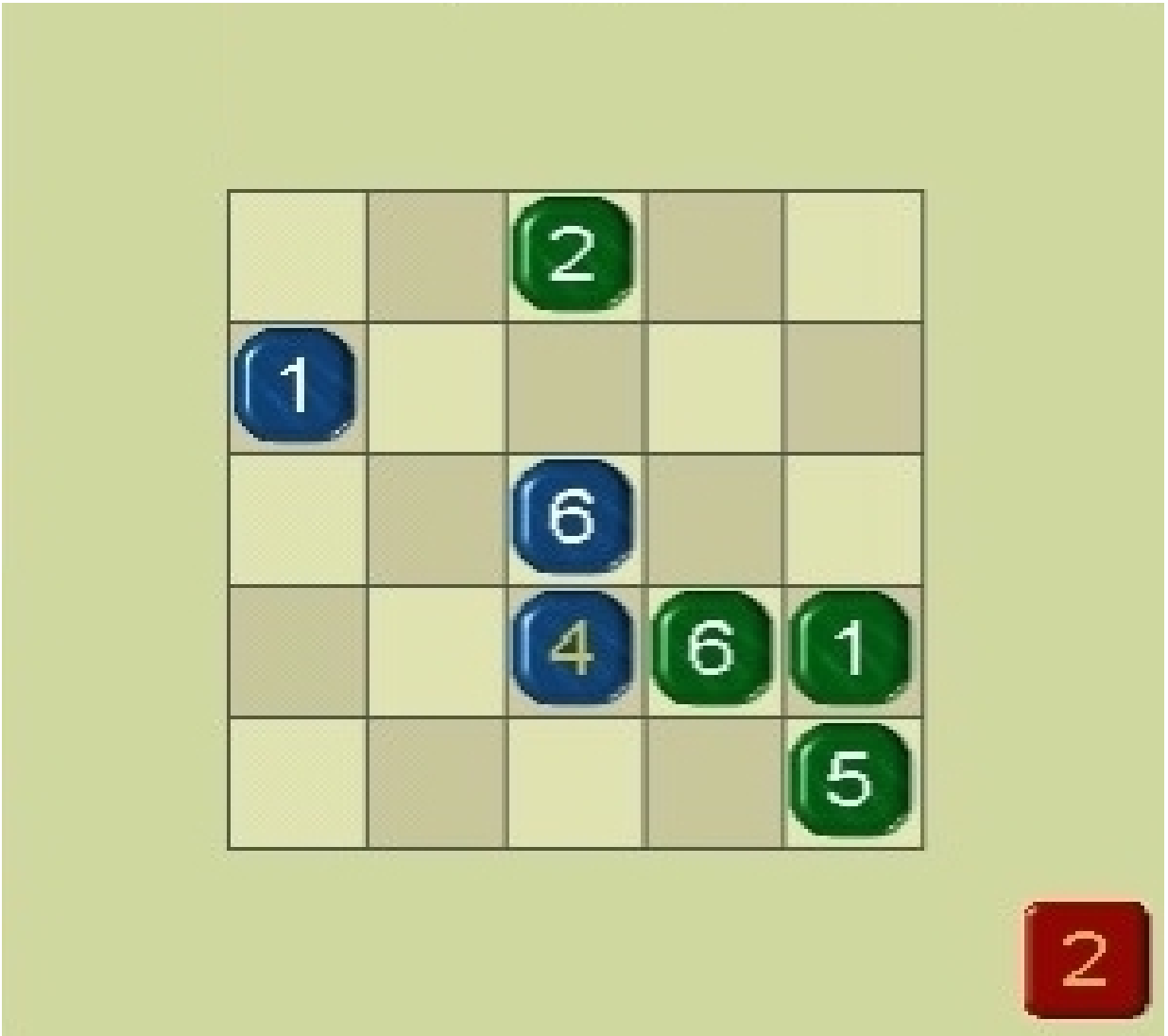
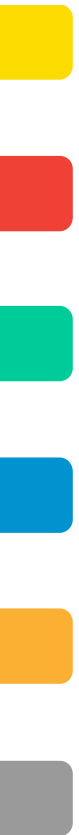


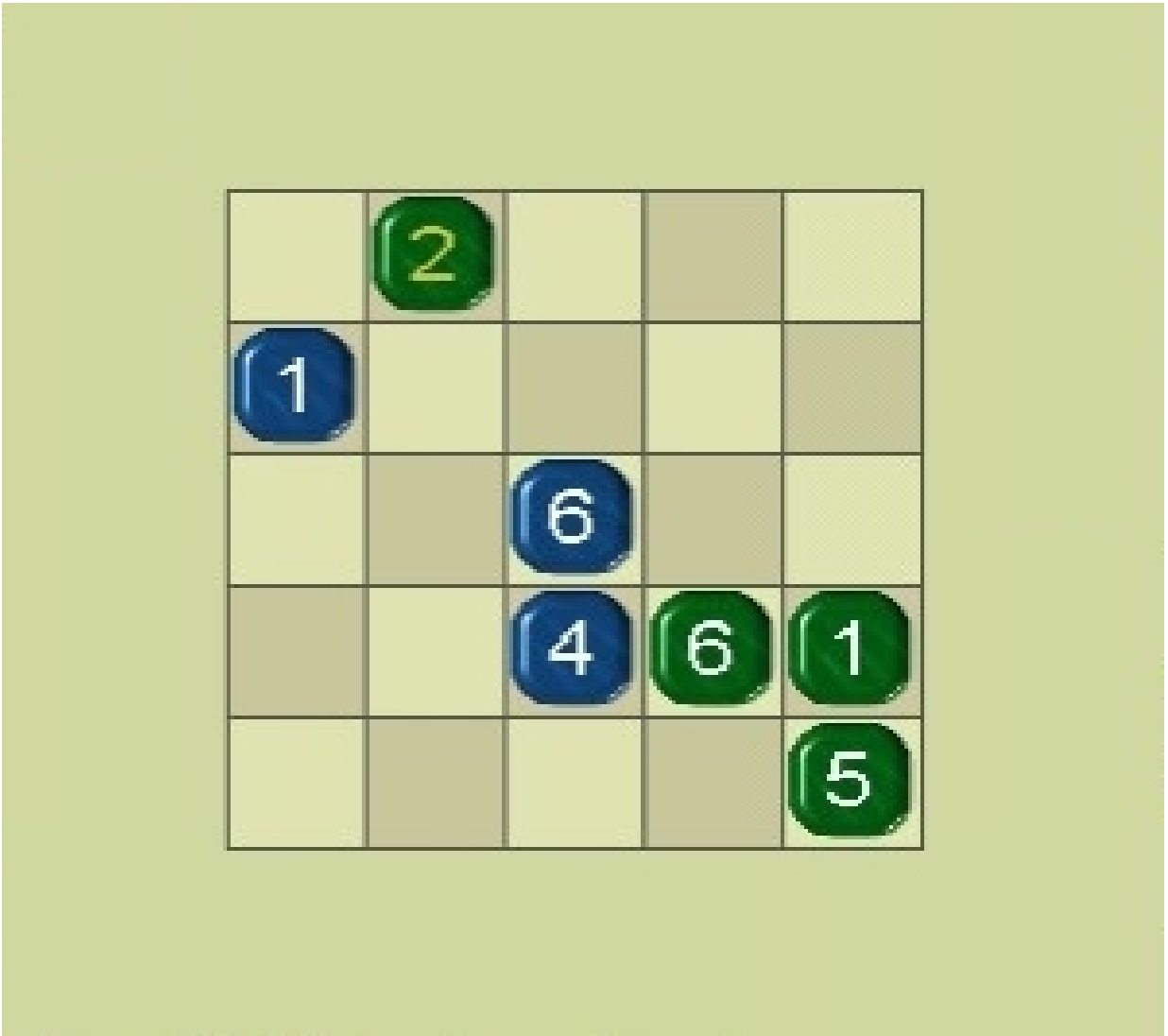
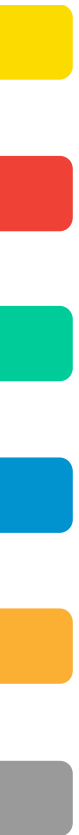


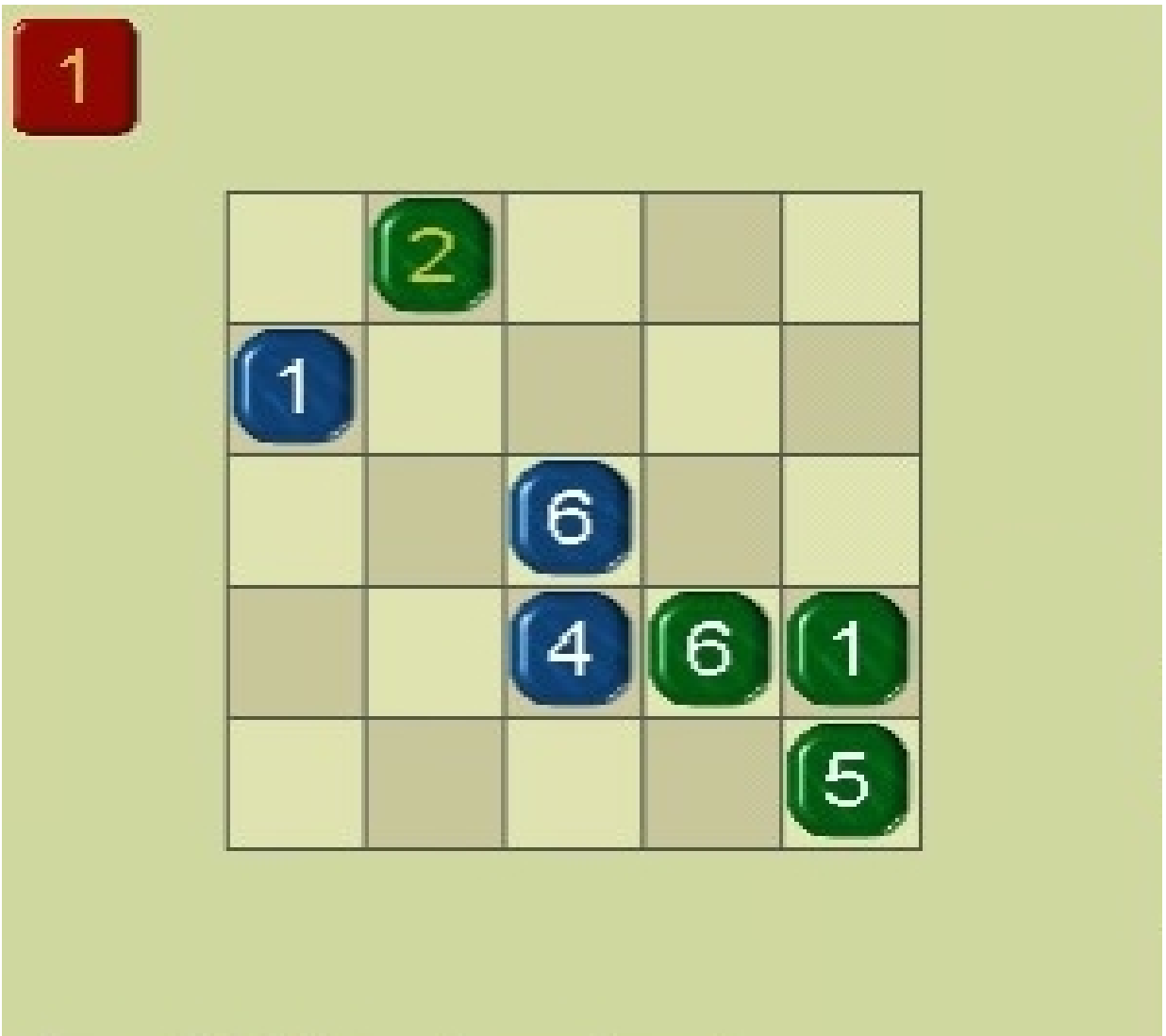
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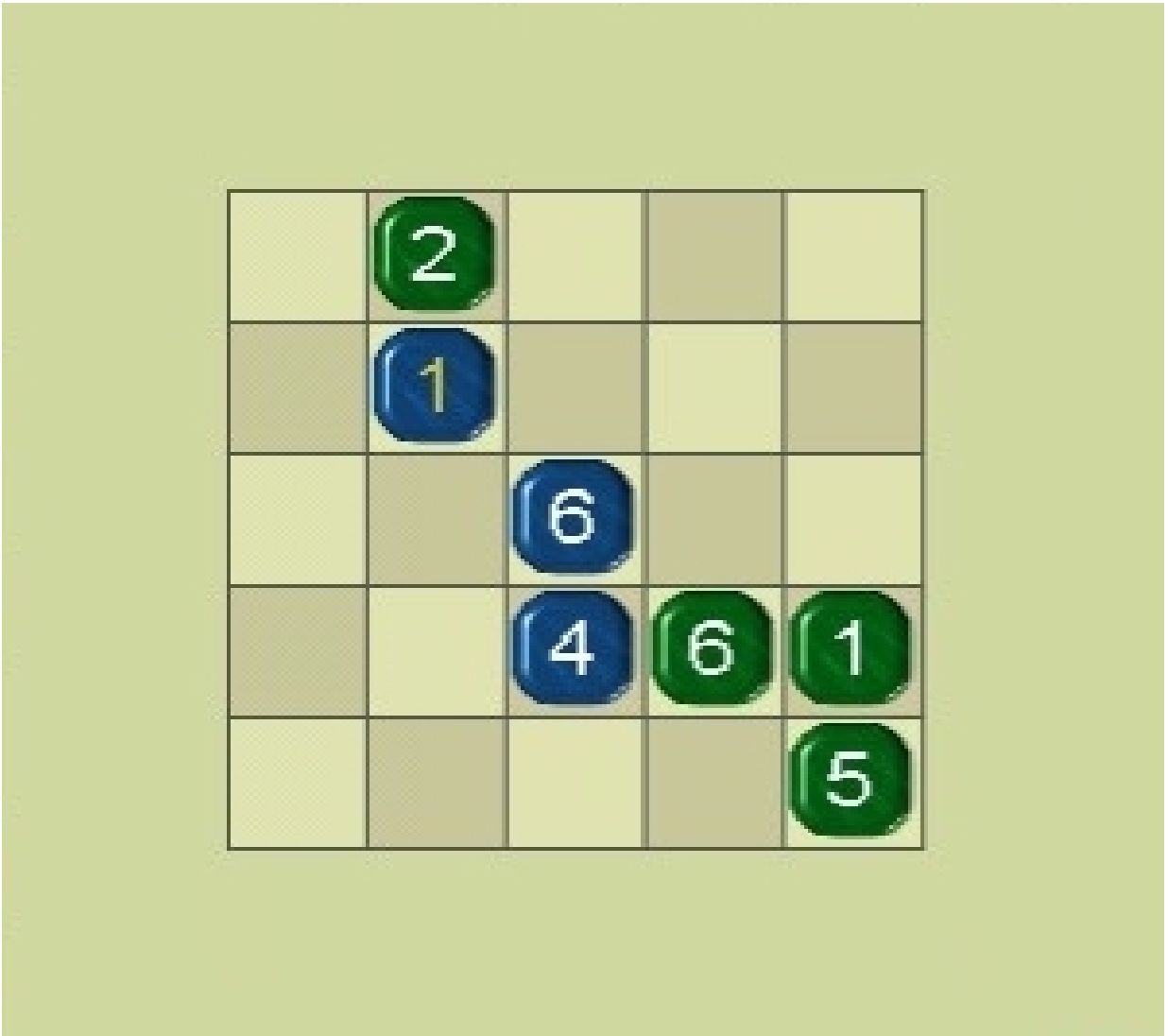
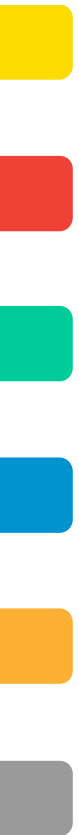
		2		
1				
	4	6		
		4	6	1
				5

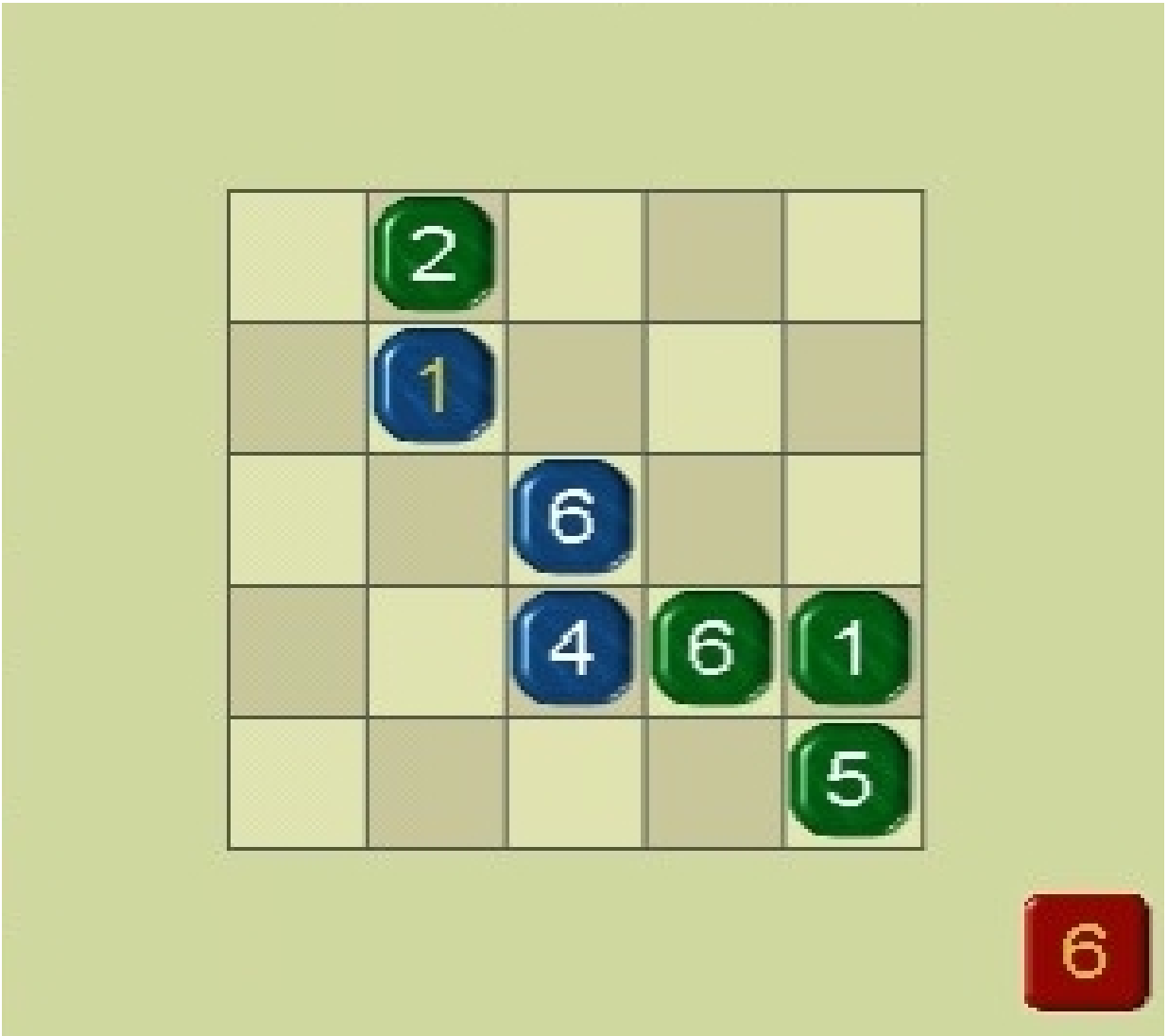
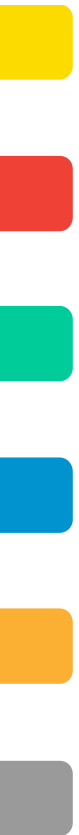


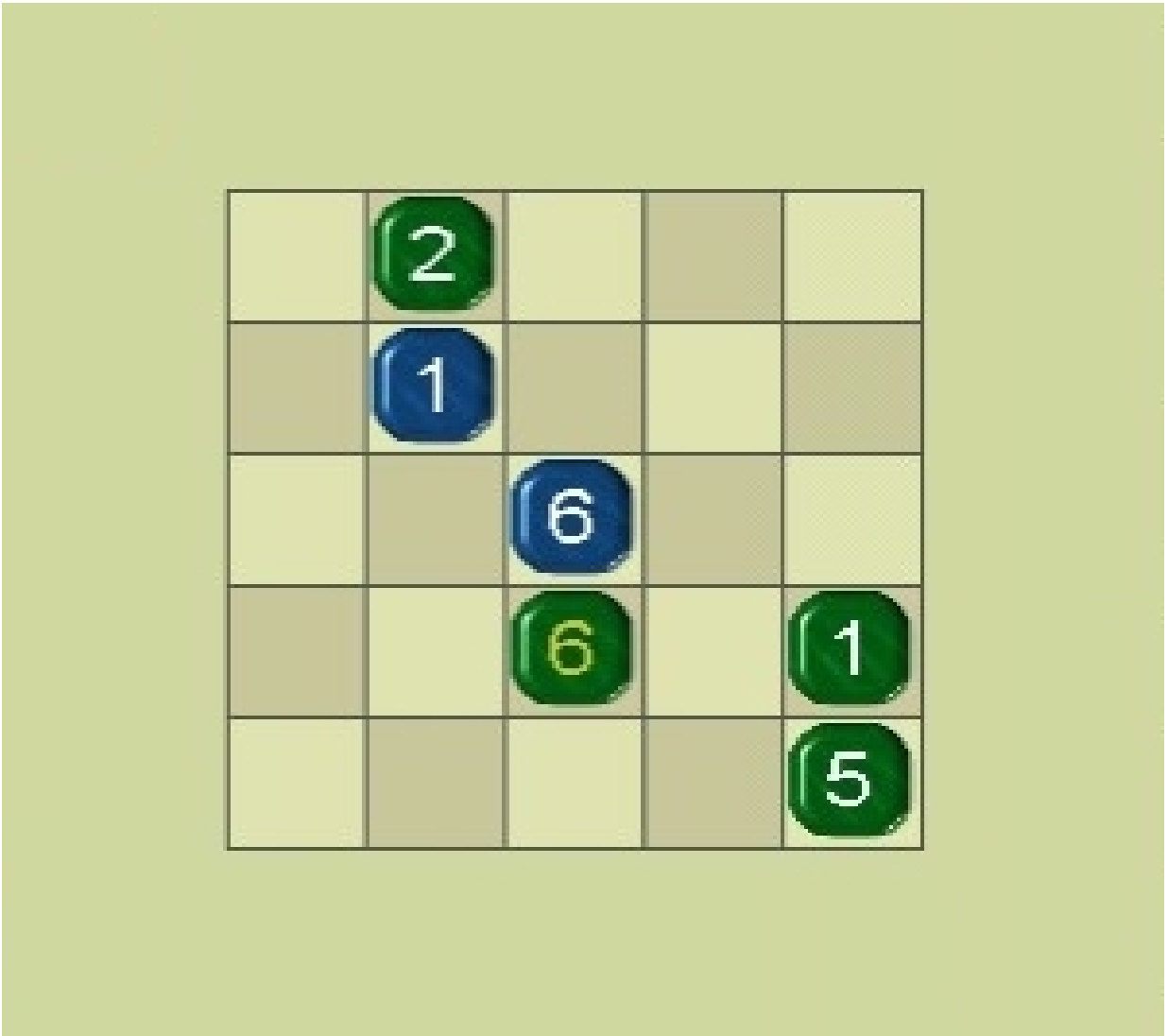
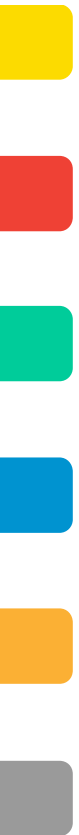


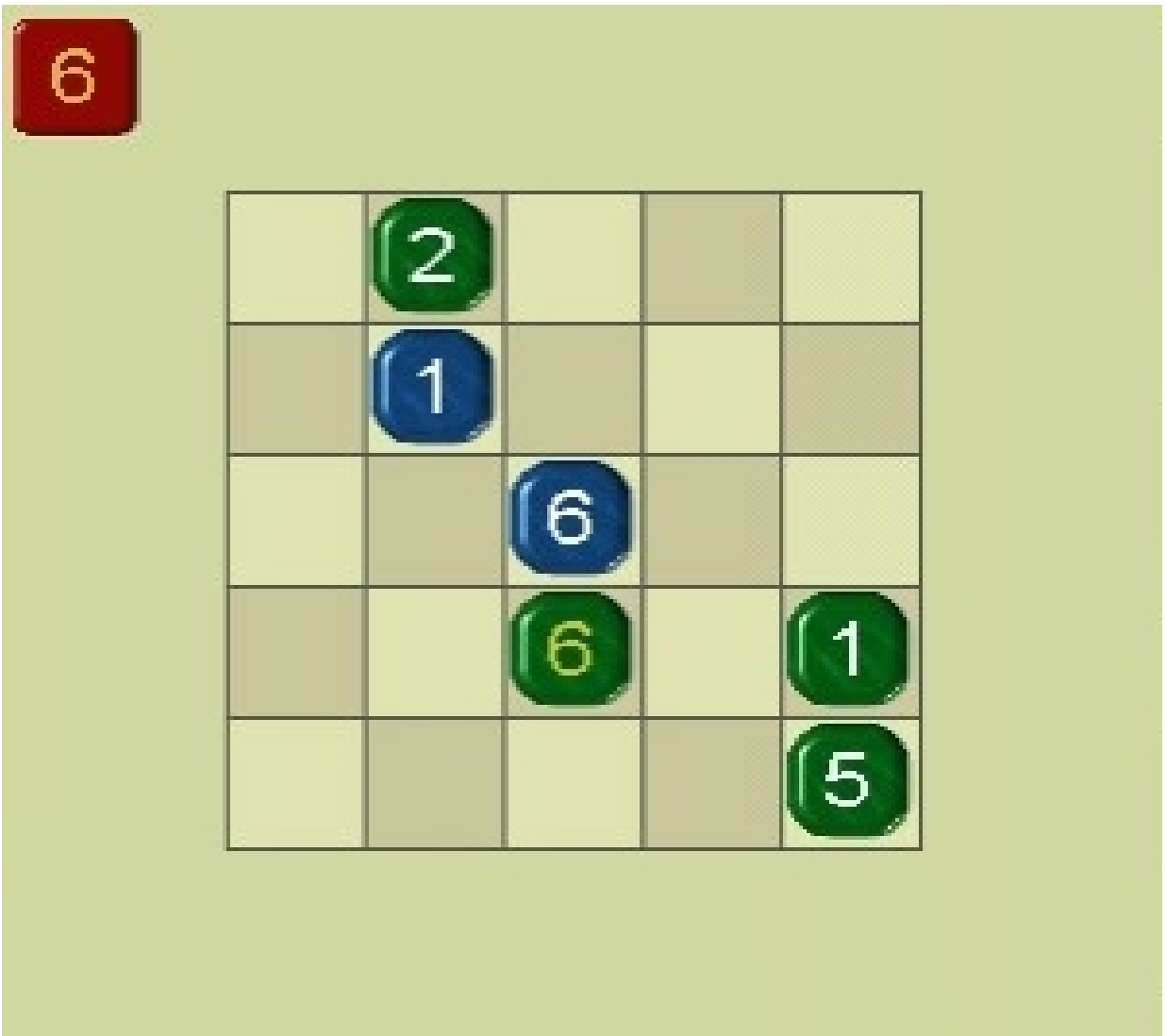
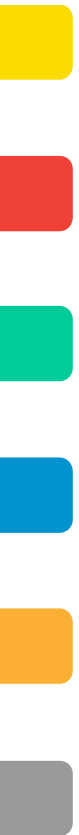


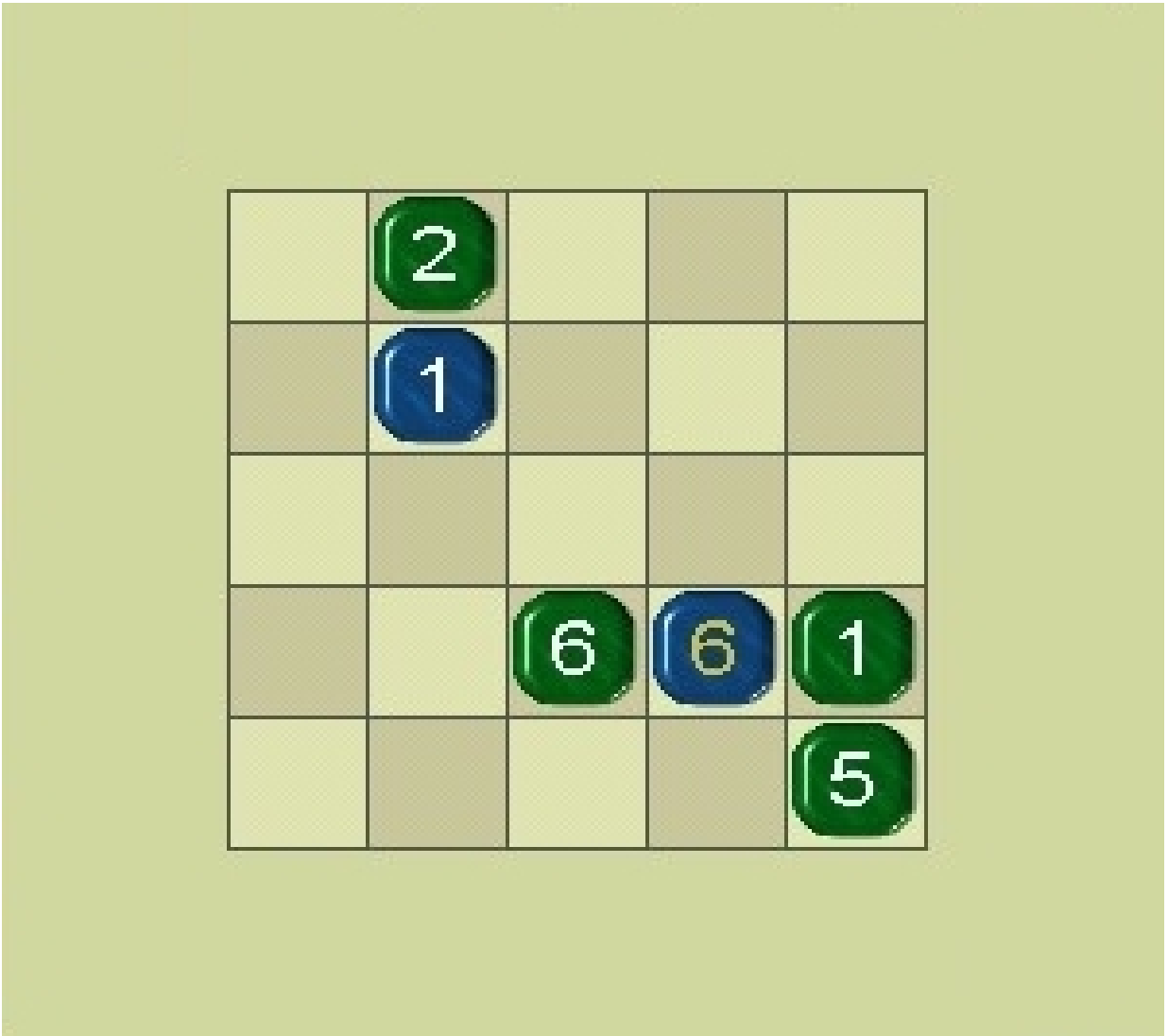
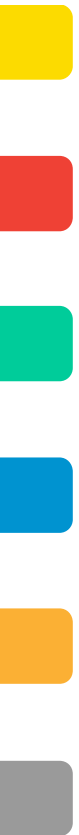


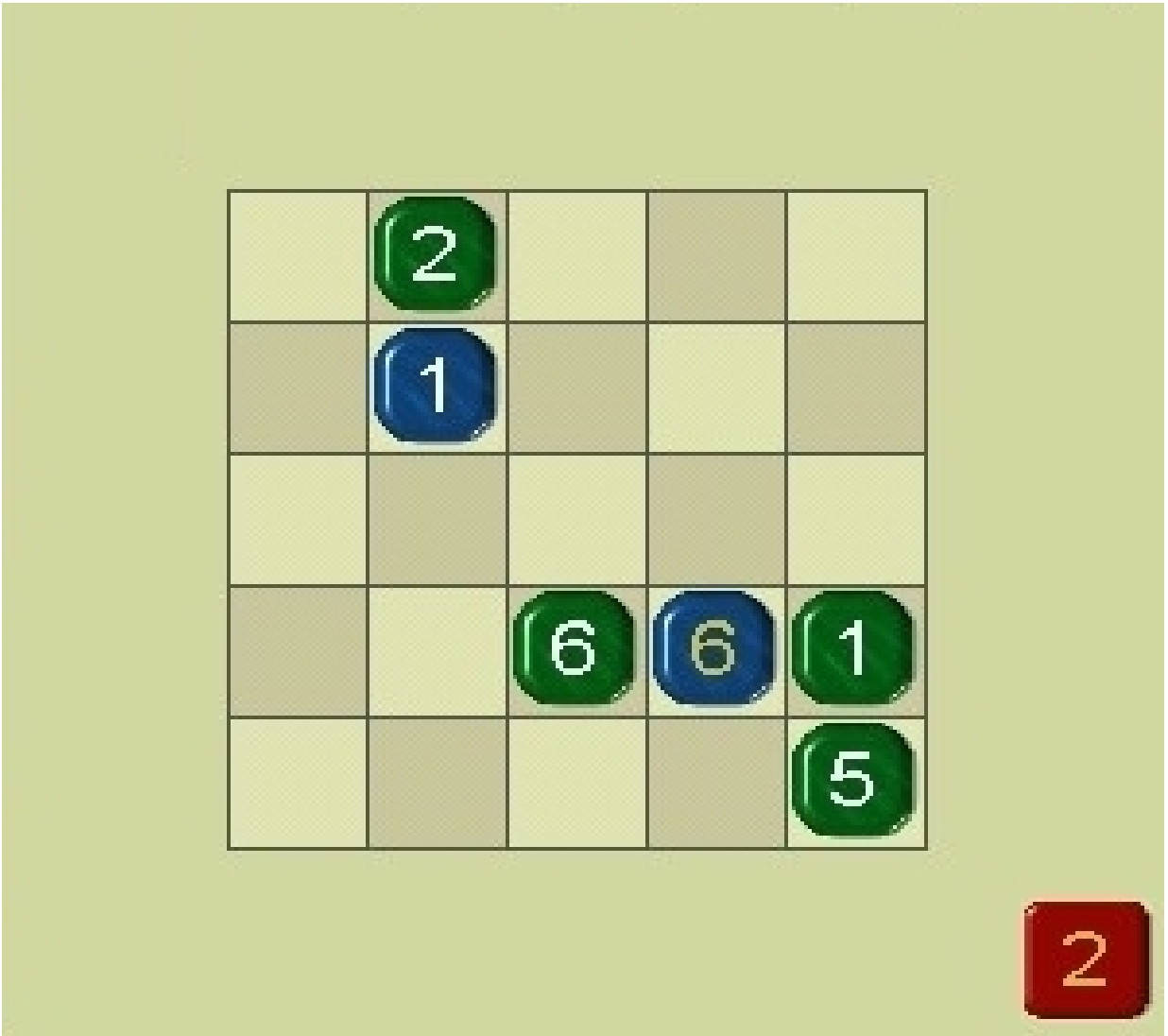
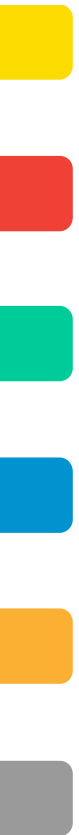


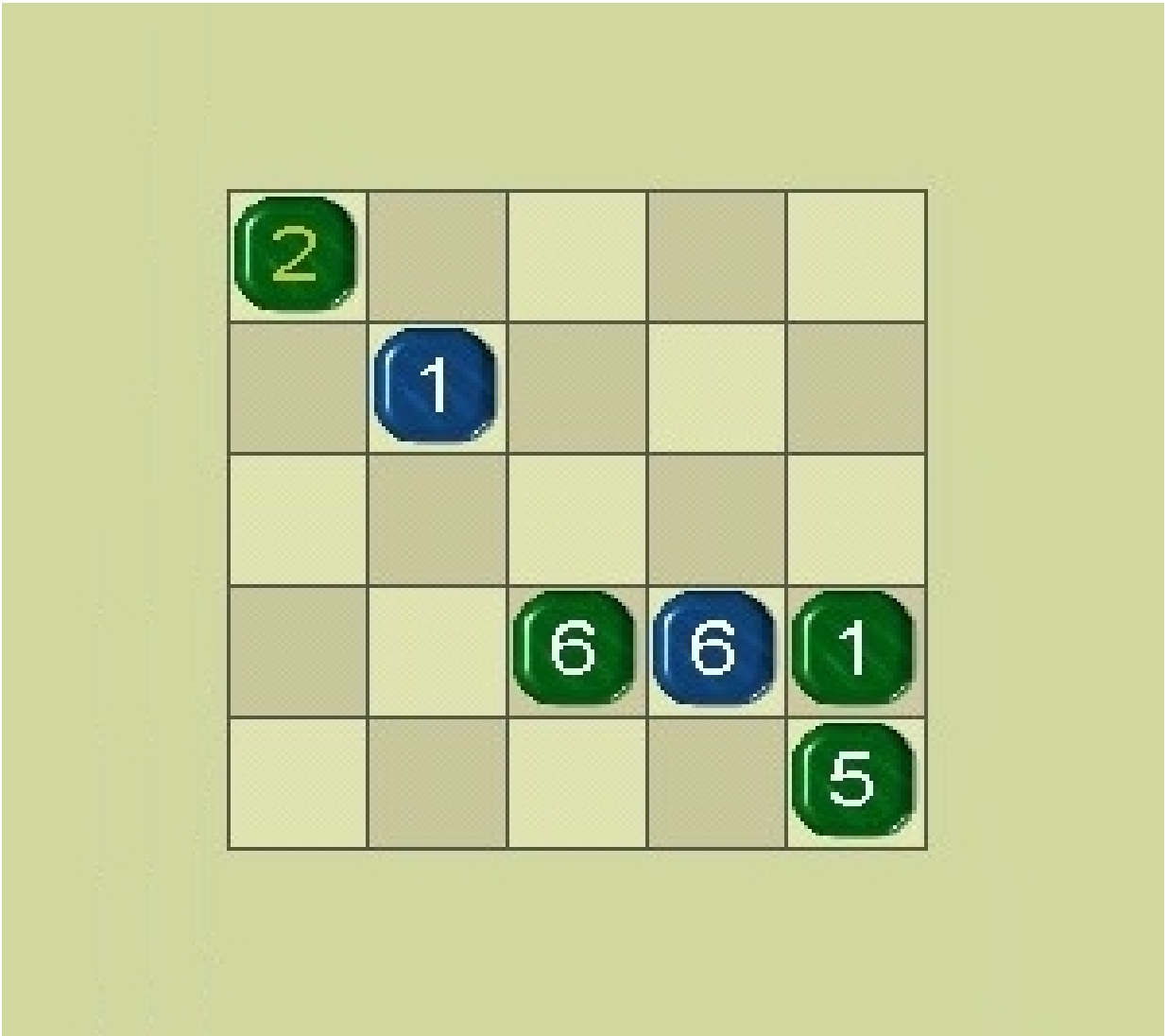
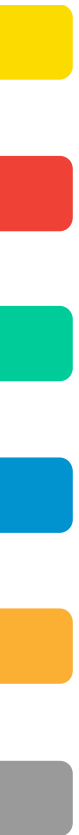


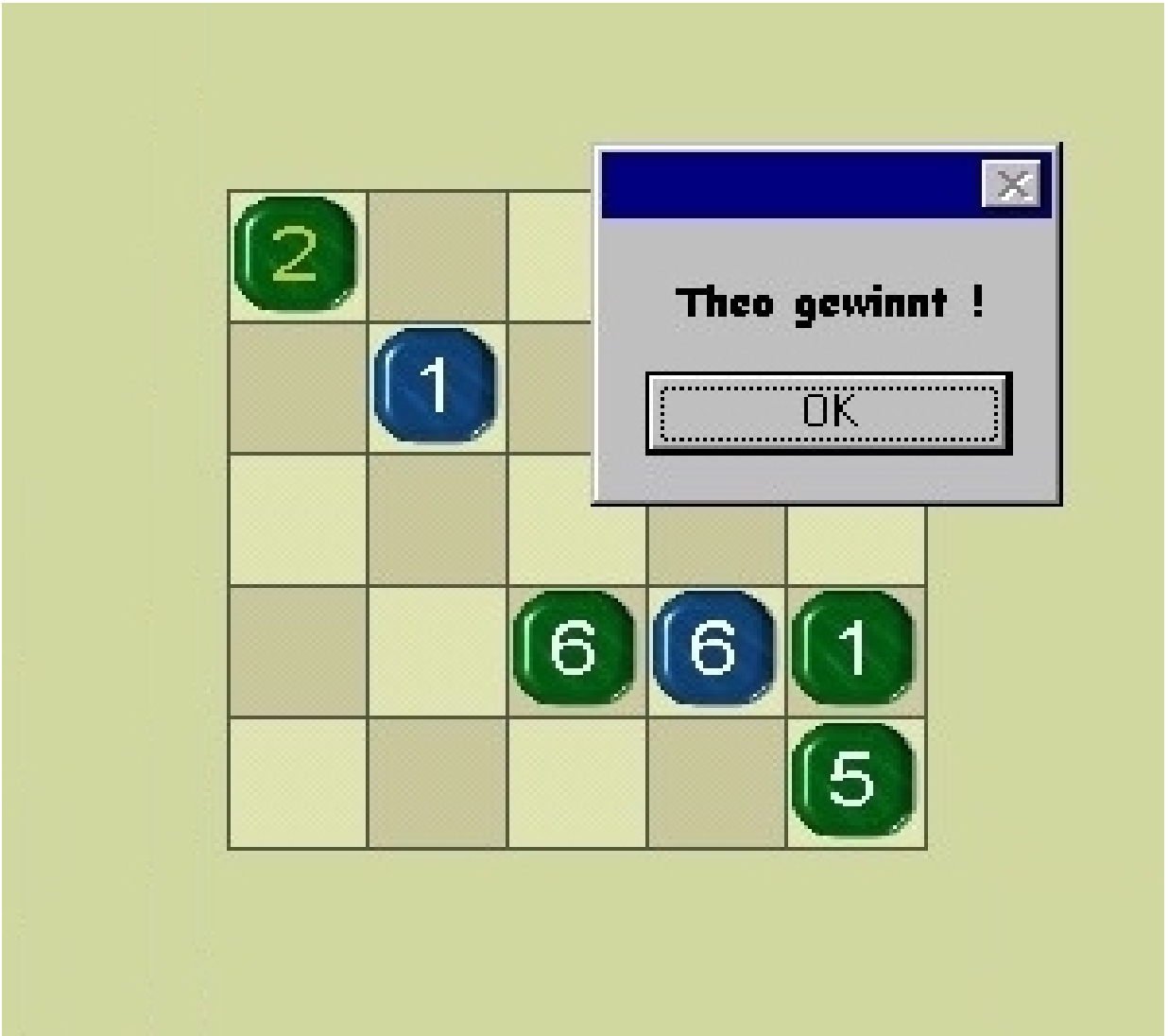
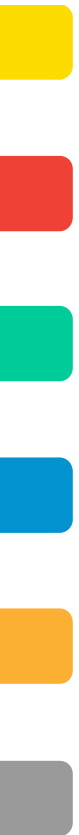












Vollständige Beschreibung des Spiels:

B1 1 a5-a4 [:B5]
G6 6 d1-d2 [:G3]
B5 6 b5-b4 [:B2]
G3 2 e3-d4
B4 4 a3-b3
G3 2 d4-c5 [:B3]
B6 6 b4-c3
G4 4 c1-c2
B4 4 b3-c2 [:G4]
G2 2 c5-b5
B1 1 a4-b4
G6 6 c2-b2 [:B4]
B6 6 c3-d2
G2 2 b5-a5 [win]

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Erörterung von besonderen Effekten im Spiel:

B1	1	a5-a4	[:B5]	schlägt eigenen Stein
G6	6	d1-d2	[:G3]	schlägt eigenen Stein
B5	6	b5-b4	[:B2]	wählen aus Lücke & schlägt eigenen Stein
G3	2	e3-d4		wählen aus Lücke
B4	4	a3-b3		
G3	2	d4-c5	[:B3]	wählen aus Lücke & schlägt fremden Stein
B6	6	b4-c3		
G4	4	c1-c2		
B4	4	b3-c2	[:G4]	schlägt fremden Stein
G2	2	c5-b5		
B1	1	a4-b4		
G6	6	c2-b2	[:B4]	schlägt fremden Stein
B6	6	c3-d2		
G2	2	b5-a5	[win]	Gewinnzug

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Erörterung des Effekts „Lücke“ im Spiel:

B1	1	a5-a4	[:B5]	Lücke entsteht
G6	6	d1-d2	[:G3]	Lücke entsteht
B5	6	b5-b4	[:B2]	Lücke entsteht
G3	2	e3-d4		wählen aus Lücke
B4	4	a3-b3		
G3	2	d4-c5	[:B3]	wählen aus Lücke; Lücke vergrößert
B6	6	b4-c3		
G4	4	c1-c2		
B4	4	b3-c2	[:G4]	Lücke vergrößert
G2	2	c5-b5		
B1	1	a4-b4		
G6	6	c2-b2	[:B4]	Lücke vergrößert
B6	6	c3-d2		
G2	2	b5-a5	[win]	Gewinnzug

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Instanz eines taktischen Musters:

B1	1	a5-a4	[:B5]	
G6	6	d1-d2	[:G3]	eigenen Stein schlagen, Lücke [2-4] entsteht
B5	6	b5-b4	[:B2]	
G3	2	e3-d4		wählen aus Lücke [2-4]
B4	4	a3-b3		
G3	2	d4-c5	[:B3]	wählen aus Lücke [2-4]
B6	6	b4-c3		
G4	4	c1-c2		
B4	4	b3-c2	[:G4]	
G2	2	c5-b5		
B1	1	a4-b4		
G6	6	c2-b2	[:B4]	
B6	6	c3-d2		
G2	2	b5-a5	[win]	

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Instanz eines taktischen Musters:

eigenen Stein n schlagen, Lücke $[(n-1) - (n+1)]$ entsteht
<irgendwas>

wählen aus Lücke $[(n-1) - (n+1)]$

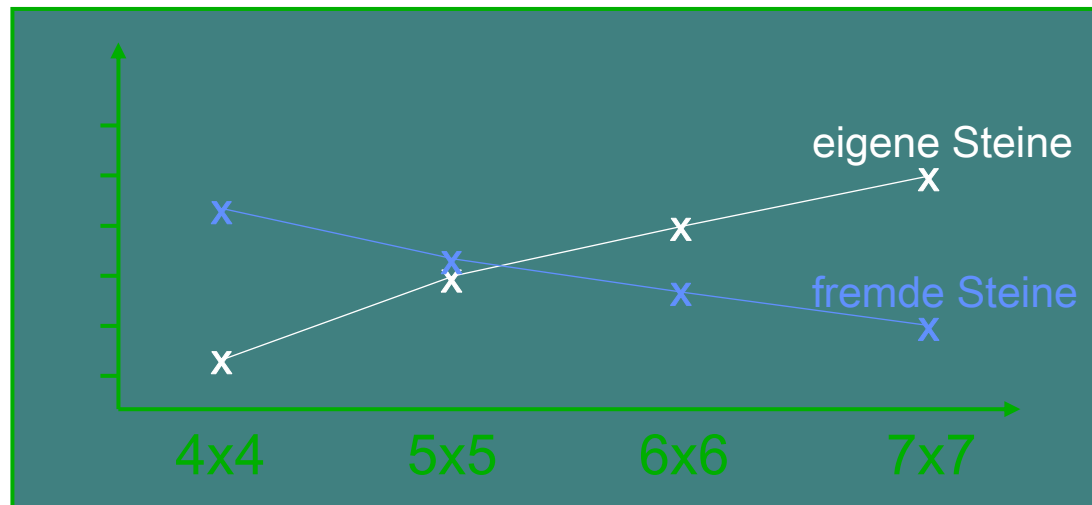
<irgendwas>

wählen aus Lücke $[(n-1) - (n+1)]$

Balancing

Ermittlung der durchschnittlichen Häufigkeit des Schlagens fremder und eigener Steine bei unterschiedlichen Spielfeldgrößen

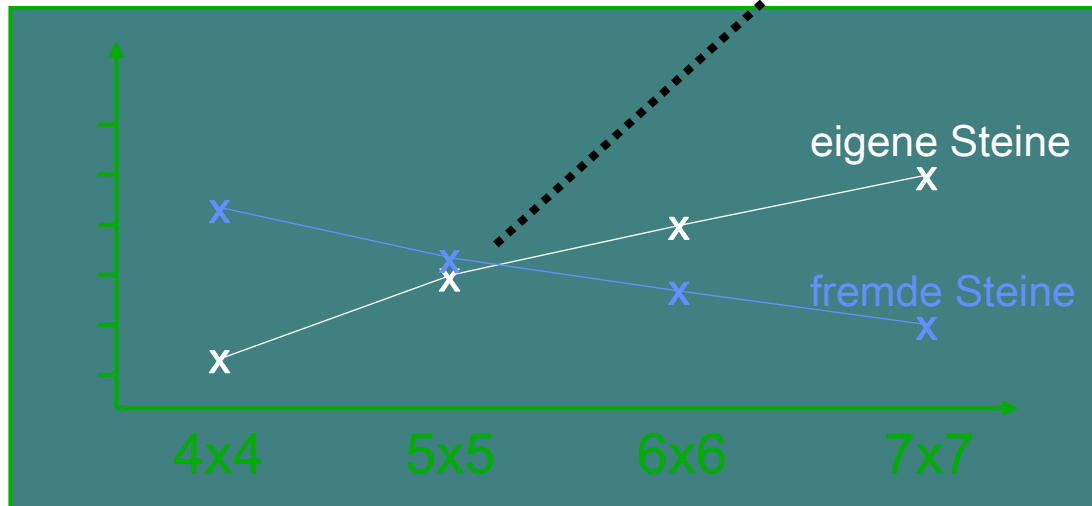
(die dargestellten Werte sind nicht numerisch korrekt)



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Balancing

fast genau bei 5x6

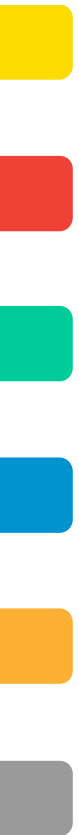


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Instanz eines taktischen Musters:

Wichtig für Analyse (Wirkung des Spiels) und Synthese (Spieldesign) ist die Wechselwirkung folgender Konzepte bzw. Phänomene:

- Auftreten von (Instanzen eines) Patterns
- Spaß an Taktik, Erfolg beim Spiel
- Parameter des Spiels (Typeigenschaften)



Thank you very much
for your attention.