

Pattern Problems and Solutions.

For an understanding of Pattern Analysis, see the Subpattern Analysis Textbook. The pattern problems begin on page 2, the pattern solutions on page 23.

Pattern Problem No. 1

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		8							8
5									
6			8						8
7									
8		8	8						
9									

Pattern Problem No. 2

	1	2	3	4	5	6	7	8	9
1	3		3						
2									
3									
4									
5									
6		3	3						
7									
8	3	3							
9									

Pattern Problem No. 3

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5				6		6			
6									
7				6		6			6
8									
9				6					6

Pattern Problem No. 4

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4					8	8			
5									
6									
7									
8	8				8	8			
9	8				8				

Pattern Problem No. 5

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5		5		5		5			
6		5		5					
7									
8									
9				5		5			

Pattern Problem No. 6

	1	2	3	4	5	6	7	8	9
1									
2				7		7	7		
3					7		7		
4									
5									
6					7	7			
7									
8									
9				7		7			

Pattern Problem No. 7

	1	2	3	4	5	6	7	8	9
1					2				2
2					2			2	2
3									
4									
5									
6									
7									
8								2	2
9									

Pattern Problem No. 8

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4			2	2			2		
5				2				2	
6			2				2		
7						2	2		
8									
9						2		2	

Pattern Problem No. 9

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4			1			1			
5									
6						1			
7	1		1		1				
8			1		1				
9									

Pattern Problem No. 10

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4			7	7					
5	7			7					
6									
7			7				7		
8					7		7		
9	7				7				

Pattern Problem No. 11

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4			1			1			
5			1	1					
6									
7									
8				1		1			1
9				1					1

Pattern Problem No. 12

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7			3						3
8				3					3
9			3	3					3

Pattern Problem No. 13

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4							2		2
5									
6									
7									
8				2			2		2
9				2			2		2

Pattern Problem No. 14

	1	2	3	4	5	6	7	8	9
1									
2					7	7			
3									
4									
5				7		7			
6									
7									
8									
9				7	7	7			

Pattern Problem No. 15

	1	2	3	4	5	6	7	8	9
1					2				2
2					2		2		
3									
4									
5		2							2
6		2					2		2
7									
8									
9									

Pattern Problem No. 16

	1	2	3	4	5	6	7	8	9
1			9						9
2		9							9
3									
4									
5	9	9	9						
6									
7									
8	9	9							
9									

Pattern Problem No. 17

	1	2	3	4	5	6	7	8	9
1									
2					2			2	2
3					2			2	
4									
5									
6									
7									
8								2	2
9									

Pattern Problem No. 18

	1	2	3	4	5	6	7	8	9
1			9			9			
2			9		9				
3									
4									
5									
6									
7						9		9	
8									
9					9	9		9	

Pattern Problem No. 19

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		9			9			9	
5					9		9		
6		9						9	
7							9	9	
8									
9									

Pattern Problem No. 20

	1	2	3	4	5	6	7	8	9
1									
2				6					6
3					6			6	
4			6	6					6
5			6						6
6					6			6	
7									
8									
9									

Pattern Problem No. 21

	1	2	3	4	5	6	7	8	9
1									
2						9			9
3					9			9	9
4									
5					9			9	
6						9		9	9
7									
8									
9									

Pattern Problem No. 22

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6				4	4				
7					4			4	
8		4		4	4				
9		4						4	

Pattern Problem No. 23

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		7							7
5		7						7	
6									
7					7			7	7
8	7				7				
9	7							7	

Pattern Problem No. 24

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		9	9					9	
5									
6		9	9					9	
7									
8		9			9				
9			9		9				

Pattern Problem No. 25

	1	2	3	4	5	6	7	8	9
1									
2	2	2							
3									
4	2	2		2					
5				2			2		
6	2						2		
7									
8									
9									

Pattern Problem No. 26

	1	2	3	4	5	6	7	8	9
1									
2							1		1
3									
4				1				1	
5									
6				1			1	1	
7									
8								1	1
9									

Pattern Problem No. 27

	1	2	3	4	5	6	7	8	9
1		1	1		1				
2			1		1				
3									
4									
5			1						1
6		1							1
7									
8									
9									

Pattern Problem No. 28

	1	2	3	4	5	6	7	8	9
1			2		2				2
2			2		2			2	
3			2					2	
4									
5									
6									
7							2	2	
8									
9									

Pattern Problem No. 29

	1	2	3	4	5	6	7	8	9
1				2		2			
2									
3									
4				2	2	2			
5									
6									
7					2				2
8						2			2
9									

Pattern Problem No. 30

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4					1			1	
5				1					1
6									
7		1		1					
8								1	1
9		1		1	1				

Pattern Problem No. 31

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4					4	4			
5							4		4
6									
7					4	4			4
8						4	4		
9									

Pattern Problem No. 32

	1	2	3	4	5	6	7	8	9
1	9			9					
2			9	9					
3									
4									
5									
6									
7					9		9		
8	9		9				9		
9	9				9				

Pattern Problem No. 33

	1	2	3	4	5	6	7	8	9
1									
2									
3							1		1
4	1		1			1			
5			1				1		
6				1			1		1
7	1		1						
8				1		1			
9									

Pattern Problem No. 34

	1	2	3	4	5	6	7	8	9
1									
2	5	5							
3									
4	5		5						
5									
6									
7		5	5						5
8			5						5
9									

Pattern Problem No. 35

	1	2	3	4	5	6	7	8	9
1									
2				9	9	9			
3									
4						9	9		
5									
6				9			9		
7									
8									
9				9	9				

Pattern Problem No. 36

	1	2	3	4	5	6	7	8	9
1		1			1				
2		1		1	1				
3									
4	1			1					
5	1				1				
6									
7									
8									
9									

Pattern Problem No. 37

	1	2	3	4	5	6	7	8	9
1									
2					2	2			
3									
4									
5				2	2				
6									
7				2		2		2	
8					2			2	
9									

Pattern Problem No. 38

	1	2	3	4	5	6	7	8	9
1									
2			4		4				
3	4				4				
4	4		4			4			
5	4					4			
6									
7									
8									
9									

Pattern Problem No. 39

	1	2	3	4	5	6	7	8	9
1									
2						9			9
3						9	9		
4					9		9		9
5									
6					9		9		9
7									
8									
9									

Pattern Problem No. 40

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5				1		1			
6									
7									
8		1		1		1			
9		1		1		1			

Pattern Problem No. 41

	1	2	3	4	5	6	7	8	9
1				7		7			
2		7	7						
3									
4									
5				7		7			
6		7	7						
7									
8									
9									

Pattern Problem No. 42

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4							5	5	
5	5				5				
6	5				5				
7									
8							5	5	
9									

Pattern Problem No. 43

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4	1					1			
5	1	1				1			1
6						1			1
7									
8	1	1							
9									

Pattern Problem No. 44

	1	2	3	4	5	6	7	8	9
1	5				5				
2	5			5	5				
3									
4									
5									
6									
7					5		5		
8				5	5		5		
9									

Pattern Problem No. 45

	1	2	3	4	5	6	7	8	9
1						8			8
2			8			8			
3		8							8
4									
5	8		8						
6									
7									
8	8	8	8						
9									

Pattern Problem No. 46

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5				8	8				
6									
7									
8		8		8	8				
9		8		8	8				

Pattern Problem No. 47

	1	2	3	4	5	6	7	8	9
1									
2		8					8		8
3		8						8	
4					8			8	
5									
6					8		8		8
7									
8									
9							8	8	

Pattern Problem No. 48

	1	2	3	4	5	6	7	8	9
1		1				1	1		
2		1				1	1		
3			1				1		
4		1	1						
5									
6									
7									
8									
9									

Pattern Problem No. 49

	1	2	3	4	5	6	7	8	9
1		7	7						
2									
3									
4									
5									
6									
7		7	7				7		
8		7	7				7		
9									

Pattern Problem No. 50

	1	2	3	4	5	6	7	8	9
1		1	1						
2									
3							1	1	
4		1	1				1		
5									
6		1	1						1
7									
8									
9									

Pattern Problem No. 51

	1	2	3	4	5	6	7	8	9
1	1		1						
2									
3									
4									
5							1		1
6									
7									
8	1						1		
9	1		1				1		1

Pattern Problem No. 52

	1	2	3	4	5	6	7	8	9
1									
2	2		2				2		2
3	2								2
4	2		2						
5									
6									
7									
8							2		
9									2

Pattern Problem No. 53

	1	2	3	4	5	6	7	8	9
1									
2								5	5
3									
4	5			5		5			
5	5			5		5			
6									
7									
8						5			5
9				5				5	

Pattern Problem No. 54

	1	2	3	4	5	6	7	8	9
1	8								8
2	8						8		
3									
4									
5									
6									
7			8				8		8
8			8				8		8
9									

Pattern Problem No. 55

	1	2	3	4	5	6	7	8	9
1	1		1					1	
2									
3			1				1	1	
4									
5									
6									
7			1				1		
8	1					1			
9						1	1	1	

Pattern Problem No. 56

	1	2	3	4	5	6	7	8	9
1							2		2
2									
3									
4					2	2	2		2
5									
6					2				2
7									
8					2	2			
9									

Pattern Problem No. 57

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5				2		2		2	
6				2					2
7						2		2	
8									
9				2		2		2	2

Pattern Problem No. 58

	1	2	3	4	5	6	7	8	9
1	5								5
2									
3	5							5	
4									
5									
6									
7		5						5	5
8		5						5	5
9									

Pattern Problem No. 59

	1	2	3	4	5	6	7	8	9
1					7	7			
2									
3									
4			7			7		7	
5					7			7	
6			7			7		7	
7									
8									
9									

Pattern Problem No. 60

	1	2	3	4	5	6	7	8	9
1					2		2		2
2									
3					2				2
4									
5									
6									
7									
8	2								2
9	2						2		2

Pattern Problem No. 61

	1	2	3	4	5	6	7	8	9
1		3			3			3	
2	3								3
3		3			3			3	
4									
5									
6									
7		3						3	
8									
9	3								3

Pattern Problem No. 62

	1	2	3	4	5	6	7	8	9
1	4				4			4	4
2	4				4				
3					4				4
4									
5									
6									
7						4			4
8									
9						4		4	

Pattern Problem No. 63

	1	2	3	4	5	6	7	8	9
1									
2	1	1							1
3	1								1
4									
5									
6									
7									
8	1	1					1		
9		1					1		

Pattern Problem No. 64

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4						7		7	
5			7					7	7
6			7			7			7
7					7				7
8					7			7	
9									

Pattern Problem No. 65

	1	2	3	4	5	6	7	8	9
1									
2			3			3			
3			3			3			
4				3	3				
5									
6									
7									
8				3	3				
9									

Pattern Problem No. 66

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5								1	
6	1	1							
7									
8	1	1						1	1
9	1							1	

Pattern Problem No. 67

	1	2	3	4	5	6	7	8	9
1	7								7
2									
3			7				7		7
4									
5								7	7
6	7		7						
7									
8							7	7	7
9									

Pattern Problem No. 68

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4							7	7	
5									
6	7		7						
7			7				7	7	
8	7						7	7	
9									

Pattern Problem No. 69

	1	2	3	4	5	6	7	8	9
1									
2				2			2		
3					2	2	2		
4				2	2	2			
5									
6									
7				2	2				
8									
9									

Pattern Problem No. 70

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4			5		5		5		
5			5		5		5		
6			5		5				
7									
8									
9									

Pattern Problem No. 71

	1	2	3	4	5	6	7	8	9
1		4		4					
2									
3		4		4	4				
4									
5									
6				4	4	4			
7									
8				4		4			
9									

Pattern Problem No. 72

	1	2	3	4	5	6	7	8	9
1									
2	5						5		
3	5								5
4				5					5
5		5	5				5		
6		5				5			
7				5		5			
8		5	5						
9									

Pattern Problem No. 73

	1	2	3	4	5	6	7	8	9
1	2						2		
2	2				2			2	
3	2				2			2	
4							2		2
5									
6									
7									
8								2	2
9									

Pattern Problem No. 74

	1	2	3	4	5	6	7	8	9
1									
2									
3				4	4				
4					4			4	
5				4		4		4	4
6									
7								4	4
8					4	4			
9									

Pattern Problem No. 75

	1	2	3	4	5	6	7	8	9
1									
2					9	9			
3	9	9							
4									
5									
6				9	9				
7									
8	9	9			9				
9	9			9		9			

Pattern Problem No. 76

	1	2	3	4	5	6	7	8	9
1									
2					9	9			
3	9	9							
4									
5									
6				9	9				
7									
8	9	9			9				
9	9			9		9			

Pattern Problem No. 77

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5	1			1		1			
6	1					1			
7				1		1		1	
8									
9				1				1	

Pattern Problem No. 78

	1	2	3	4	5	6	7	8	9
1		9						9	
2	9					9	9		
3		9				9	9		
4							9	9	
5	9	9							
6									
7									
8									
9									

Pattern Problem No. 79

	1	2	3	4	5	6	7	8	9
1									
2									
3					3	3			
4						3	3		
5	3					3			
6					3	3	3		
7									
8									
9									

Pattern Problem No. 80

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5	3			3	3				
6	3			3					
7		3			3				
8		3		3	3				
9									

Pattern Problem No. 81

	1	2	3	4	5	6	7	8	9
1				5	5	5			
2									
3									
4									
5									
6				5	5	5			
7									
8									
9				5	5	5			

Pattern Problem No. 82

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5				5	5		5		
6				5			5		5
7							5		5
8									
9				5	5				

Pattern Problem No. 83

	1	2	3	4	5	6	7	8	9
1									
2									
3	1	1	1						
4		1	1						1
5			1						1
6									
7									
8	1	1							
9									

Pattern Problem No. 84

	1	2	3	4	5	6	7	8	9
1	4	4							4
2									
3		4					4		4
4									
5									
6									
7	4	4					4		
8									
9	4	4							4

Pattern Problem No. 85

	1	2	3	4	5	6	7	8	9
1			8					8	
2		8				8		8	
3		8		8		8			
4									
5		8	8						
6									
7				8		8			
8									
9									

Pattern Problem No. 86

	1	2	3	4	5	6	7	8	9
1			3	3	3				
2									
3	3				3				
4									
5			3					3	
6	3							3	
7									
8									
9				3	3				

Pattern Problem No. 87

	1	2	3	4	5	6	7	8	9
1									
2									
3								4	4
4	4				4			4	
5	4				4				4
6					4			4	4
7									
8									
9									

Pattern Problem No. 88

	1	2	3	4	5	6	7	8	9
1				2		2			
2									
3									
4									
5				2	2	2		2	
6					2	2		2	
7				2	2				
8									
9									

Pattern Problem No. 89

	1	2	3	4	5	6	7	8	9
1	7	7							
2									
3									
4									
5	7	7	7						
6								7	
7									
8	7	7					7		
9	7	7	7					7	

Pattern Problem No. 90

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		1	1						
5									
6									
7			1	1			1		
8		1	1	1					
9			1	1			1		

Pattern Problem No. 91

	1	2	3	4	5	6	7	8	9
1									
2					1	1			
3									
4									
5	1	1						1	
6	1							1	
7		1			1	1			
8	1				1	1			
9									

Pattern Problem No. 92

	1	2	3	4	5	6	7	8	9
1									
2				9				9	
3				9	9	9			9
4									
5					9				9
6				9				9	9
7				9	9	9			
8									
9									

Pattern Problem No. 93

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		3		3	3				
5									
6		3			3				
7	3				3			3	
8	3			3				3	
9	3				3				

Pattern Problem No. 94

	1	2	3	4	5	6	7	8	9
1									
2		2					2		
3		2	2						2
4		2	2						
5									
6									
7					2		2		2
8					2				2
9									

Pattern Problem No. 95

	1	2	3	4	5	6	7	8	9
1	4		4	4					
2	4		4	4					
3									
4			4						4
5									
6	4							4	4
7									
8								4	4
9									

Pattern Problem No. 96

	1	2	3	4	5	6	7	8	9
1							1	1	1
2									
3									
4		1					1	1	1
5		1						1	
6									
7									
8							1		1
9									

Pattern Problem No. 97

	1	2	3	4	5	6	7	8	9
1							2	2	
2									
3									
4									
5			2				2	2	
6			2				2		2
7		2					2	2	
8		2						2	2
9									

Pattern Problem No. 98

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4		6				6		6	
5			6			6			
6		6						6	
7		6	6				6		
8		6	6				6		
9									

Pattern Problem No. 99

	1	2	3	4	5	6	7	8	9
1					7		7		7
2					7	7	7		7
3									
4									
5									
6									
7					7	7			7
8									
9					7		7		7

Pattern Problem No. 100

	1	2	3	4	5	6	7	8	9
1							2	2	2
2				2		2			
3									
4									
5							2	2	
6									
7	2			2					
8	2					2	2		2
9	2						2	2	

Pattern Problem No. 101

	1	2	3	4	5	6	7	8	9
1									
2									
3		3	3						
4		3	3	3		3			
5									
6		3	3	3					
7									
8				3		3			
9									

Pattern Problem No. 102

	1	2	3	4	5	6	7	8	9
1		2	2				2		
2									
3	2		2				2		
4	2	2							2
5									
6	2		2						2
7									
8		2	2						
9									

Pattern Problem No. 103

	1	2	3	4	5	6	7	8	9
1	9	9						9	
2									
3	9							9	
4									
5	9	9	9		9				
6			9		9				
7	9		9						
8									
9									

Pattern Problem No. 104

	1	2	3	4	5	6	7	8	9
1	3	3							
2									
3									
4	3	3		3	3				
5									
6		3		3	3				
7									
8				3	3				
9									

Pattern Problem No. 105

	1	2	3	4	5	6	7	8	9
1				2		2			2
2	2		2						2
3	2			2		2			
4									
5				2		2			
6									
7									
8									
9	2		2						

Pattern Problem No. 106

	1	2	3	4	5	6	7	8	9
1									
2	8	8							
3									
4									
5				8		8			
6	8		8						
7	8	8	8	8		8			
8									
9			8	8					

Pattern Problem No. 107

	1	2	3	4	5	6	7	8	9
1									
2			1					1	
3		1	1				1		
4									
5									
6									
7									
8		1					1	1	
9			1				1	1	

Pattern Problem No. 108

	1	2	3	4	5	6	7	8	9
1									
2			6				6	6	
3			6					6	
4							6	6	6
5									
6				6			6		
7								6	6
8									
9									

Pattern Problem No. 109

	1	2	3	4	5	6	7	8	9
1	4						4	4	
2		4							4
3									
4							4	4	
5									
6									
7	4	4							4
8									
9	4						4		4

Pattern Problem No. 110

	1	2	3	4	5	6	7	8	9
1		8	8			8			
2		8	8		8	8			
3									
4		8			8	8			
5		8	8		8				
6									
7									
8									
9									

Pattern Problem No. 111

	1	2	3	4	5	6	7	8	9
1					6	6			
2									
3									
4	6				6				6
5			6		6				
6	6				6	6			6
7									
8	6		6						
9									

Pattern Problem No. 112

	1	2	3	4	5	6	7	8	9
1			4		4				
2			4	4	4	4			
3									
4				4		4			
5									
6									
7				4	4		4		
8									
9					4		4		

Pattern Problem No. 113

	1	2	3	4	5	6	7	8	9
1	1	1		1				1	1
2	1							1	
3	1			1					1
4									
5									
6	1	1							
7									
8								1	
9									

Pattern Problem No. 114

	1	2	3	4	5	6	7	8	9
1	4			4				4	4
2	4						4	4	
3	4			4					4
4								4	4
5									
6									
7									
8							4	4	4
9									

Pattern Problem No. 115

	1	2	3	4	5	6	7	8	9
1									
2	1		1						
3									
4						1	1		1
5						1	1		
6									
7	1		1				1		1
8									
9			1				1		

Pattern Problem No. 116

	1	2	3	4	5	6	7	8	9
1	7	7							
2									
3				7	7				
4									
5									
6									
7		7		7					
8	7				7				7
9	7	7		7	7				7

Pattern Problem No. 117

	1	2	3	4	5	6	7	8	9
1									
2		8						8	
3	8						8		8
4	8			8			8		8
5		8						8	
6	8			8			8		8
7									
8									
9									

Pattern Problem No. 118

	1	2	3	4	5	6	7	8	9
1				2	2		2		
2									
3					2		2		
4		2	2						
5									
6									
7		2	2		2				
8									
9			2	2	2				

Pattern Problem No. 119

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4	1				1				
5							1	1	
6	1				1				
7			1				1	1	
8			1				1		
9									

Pattern Problem No. 120

	1	2	3	4	5	6	7	8	9
1	4		4					4	
2	4		4	4					
3	4			4				4	
4									
5									
6									
7									
8	4		4		4				
9	4				4				

Pattern Problem No. 121

	1	2	3	4	5	6	7	8	9
1			6				6		
2									
3	6							6	6
4			6				6		
5				6	6			6	6
6	6				6				
7				6				6	6
8					6			6	
9									

Pattern Problem No. 122

	1	2	3	4	5	6	7	8	9
1				9	9				
2									
3									
4									
5				9		9			9
6				9	9			9	
7					9			9	
8			9			9			9
9			9		9	9		9	9

Pattern Problem No. 123

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									

Pattern Problem No. 124

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									

Pattern Problem No. 125

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									

Pattern Problem No. 126

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									

Pattern Solution No. 1

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		8₁							8₂
row5									
row6			8₂						8₁
row7									
row8		8₂	8₁						
row9									

Pattern Solution No. 2

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	3₁		3₂						
row2									
row3									
row4									
row5									
row6		3₂	3₁						
row7									
row8	3₂	3₁							
row9									

Pattern Solution No. 3

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5				6_2		6_{13}			
row6									
row7				6_1		6_2			6_3
row8									
row9				6_3					6_{12}

Pattern Solution No. 4

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4					8_1	8_{23}			
row5									
row6									
row7									
row8	8_3				8_2	8_1			
row9	8_{12}				8_3				

Pattern Solution No. 5

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5		5 ₁		5 ₂		5 ₃			
row6		5 ₂₃		5 ₁					
row7									
row8									
row9				5 ₃		5 ₁₂			

Pattern Solution No. 6

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2				7 ₁		7 ₂	7 ₃		
row3					7 ₃		7 ₁₂		
row4									
row5									
row6					7 ₁₂	7 ₃			
row7									
row8									
row9				7 ₂₃		7 ₁			

Pattern Solution No. 7

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					2_{23}				2_1
row2					2_1			2_2	2_3
row3									
row4									
row5									
row6									
row7									
row8								2_{13}	2_2
row9									

Pattern Solution No. 8

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4			2_1	2_2			2_3		
row5				2_{13}				2_2	
row6			2_{23}				2_1		
row7						2_{13}	2_2		
row8									
row9						2_2		2_{13}	

Pattern Solution No. 9

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4			1₁			1₂₃			
row5									
row6						1₁			
row7	1₁		1₂		1₃				
row8			1₃		1₁₂				
row9									

Pattern Solution No. 10

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4			7₂	7₁					
row5	7₁			7₂					
row6									
row7			7₁				7₂		
row8					7₂		7₁		
row9	7₂				7₁				

Pattern Solution No. 11

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4			1₁			1₂₃			
row5			1₂₃	1₁					
row6									
row7									
row8				1₂		1₁			1₃
row9				1₃					1₁₂

Pattern Solution No. 12

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5									
row6									
row7			3₁₂						3₃
row8				3₁₃					3₂
row9			3₃	3₂					3₁

Pattern Solution No. 13

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4							2_{12}		2_{34}
row5									
row6									
row7									
row8				2_{24}			2_3		2_1
row9				2_{13}			2_4		2_2

Pattern Solution No. 14

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					7_{13}	7_2			
row3									
row4									
row5				7_{23}		7_1			
row6									
row7									
row8									
row9				7_1	7_2	7_3			

Pattern Solution No. 15

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					2_{13}				2_2
row2					2_2		2_{13}		
row3									
row4									
row5		2_{23}							2_1
row6		2_1					2_2		2_3
row7									
row8									
row9									

Pattern Solution No. 16

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			9_{12}						9_3
row2		9_3							9_{12}
row3									
row4									
row5	9_2	9_1	9_3						
row6									
row7									
row8	9_{13}	9_2							
row9									

Pattern Solution No. 17

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					2_3			2_1	2_2
row3					2_{12}			2_3	
row4									
row5									
row6									
row7									
row8								2_2	2_{13}
row9									

Pattern Solution No. 18

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			9_{12}			9_3			
row2			9_3		9_{12}				
row3									
row4									
row5									
row6									
row7						9_1		9_{23}	
row8									
row9					9_3	9_2		9_1	

Pattern Solution No. 19

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		9₁			9₂			9₃	
row5					9₁₃		9₂		
row6		9₂₃						9₁	
row7							9₁₃	9₂	
row8									
row9									

Pattern Solution No. 20

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2				6₁₃					6₂
row3					6₂			6₁₃	
row4			6₁	6₂					6₃
row5			6₂₃						6₁
row6					6₁₃			6₂	
row7									
row8									
row9									

Pattern Solution No. 21

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2						9_{12}			9_3
row3					9_3			9_1	9_2
row4									
row5					9_{12}			9_3	
row6						9_3		9_2	9_1
row7									
row8									
row9									

Pattern Solution No. 22

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5									
row6				4_{23}	4_1				
row7					4_2			4_{13}	
row8		4_2		4_1	4_3				
row9		4_{13}						4_2	

Pattern Solution No. 23

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		7_3							7_{12}
row5		7_{12}						7_3	
row6									
row7					7_1			7_2	7_3
row8	7_1				7_{23}				
row9	7_{23}							7_1	

Pattern Solution No. 24

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		9_1	9_2					9_{34}	
row5									
row6		9_3	9_4					9_{12}	
row7									
row8		9_{24}			9_{13}				
row9			9_{13}		9_{24}				

Pattern Solution No. 25

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	2_1	2_{23}							
row3									
row4	2_2	2_1		2_3					
row5				2_{12}			2_3		
row6	2_3						2_{12}		
row7									
row8									
row9									

Pattern Solution No. 26

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2							1_{13}		1_2
row3									
row4				1_{23}				1_1	
row5									
row6				1_1			1_2	1_3	
row7									
row8								1_2	1_{13}
row9									

Pattern Solution No. 27

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		1₁	1₂		1₃				
row2			1₃		1₁₂				
row3									
row4									
row5			1₁						1₂₃
row6		1₂₃							1₁
row7									
row8									
row9									

Pattern Solution No. 28

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			2₁		2₂₄				2₃
row2			2₂		2₁₃			2₄	
row3			2₃₄					2₁₂	
row4									
row5									
row6									
row7								2₃	2₁₂₄
row8									
row9									

Pattern Solution No. 29

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				2_{12}		2_3			
row2									
row3									
row4				2_3	2_1	2_2			
row5									
row6									
row7					2_{23}				2_1
row8						2_1			2_{23}
row9									

Pattern Solution No. 30

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4					1_{12}			1_3	
row5				1_3					1_{12}
row6									
row7		1_{23}		1_1					
row8								1_{12}	1_3
row9		1_1		1_2	1_3				

Pattern Solution No. 31

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4					4_{12}	4_3			
row5							4_2		4_{13}
row6									
row7					4_3	4_1			4_2
row8						4_2	4_{13}		
row9									

Pattern Solution No. 32

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	9_1			9_{23}					
row2			9_{23}	9_1					
row3									
row4									
row5									
row6									
row7					9_3		9_{12}		
row8	9_2		9_1				9_3		
row9	9_3				9_{12}				

Pattern Solution No. 33

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3							1₄		1₁₂₃
row4	1₁		1₂			1₃₄			
row5			1₃₄				1₁₂		
row6				1₁₂			1₃		1₄
row7	1₂₃₄		1₁						
row8				1₃₄		1₁₂			
row9									

Pattern Solution No. 34

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	5₁	5₂₃							
row3									
row4	5₂₃		5₁						
row5									
row6									
row7		5₁	5₂						5₃
row8			5₃						5₁₂
row9									

Pattern Solution No. 35

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2				9₁	9₂	9₃			
row3									
row4						9₁₂	9₃		
row5									
row6				9₃			9₁₂		
row7									
row8									
row9				9₂	9₁₃				

Pattern Solution No. 36

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		1₁₂			1₃				
row2		1₃		1₁	1₂				
row3									
row4	1₁			1₂₃					
row5	1₂₃				1₁				
row6									
row7									
row8									
row9									

Pattern Solution No. 37

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					2_1	2_{23}			
row3									
row4									
row5				2_{12}	2_3				
row6									
row7				2_3		2_1		2_2	
row8					2_2			2_{13}	
row9									

Pattern Solution No. 38

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2			4_{23}		4_1				
row3	4_1				4_{23}				
row4	4_2		4_1			4_3			
row5	4_3					4_{12}			
row6									
row7									
row8									
row9									

Pattern Solution No. 39

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2						9_{12}			9_{34}
row3						9_{34}	9_{12}		
row4					9_{24}		9_3		9_1
row5									
row6					9_{13}		9_4		9_2
row7									
row8									
row9									

Pattern Solution No. 40

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5				1_{12}		1_{34}			
row6									
row7									
row8		1_{24}		1_3		1_1			
row9		1_{13}		1_4		1_2			

Pattern Solution No. 41

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				7 ₁₃		7 ₂₄			
row2		7 ₁₂	7 ₃₄						
row3									
row4									
row5				7 ₂₄		7 ₁₃			
row6		7 ₃₄	7 ₁₂						
row7									
row8									
row9									

Pattern Solution No. 42

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4							5 ₁₃	5 ₂₄	
row5	5 ₁₂				5 ₃₄				
row6	5 ₃₄				5 ₁₂				
row7									
row8							5 ₂₄	5 ₁₃	
row9									

Pattern Solution No. 43

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4	1₃₄					1₁₂			
row5	1₁	1₂				1₃			1₄
row6						1₄			1₁₂₃
row7									
row8	1₂	1₁₃₄							
row9									

Pattern Solution No. 44

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	5₂₃₄				5₁				
row2	5₁			5₃₄	5₂				
row3									
row4									
row5									
row6									
row7					5₃		5₁₂₄		
row8				5₁₂	5₄		5₃		
row9									

Pattern Solution No. 45

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1						8₁			8₂₃
row2			8₁			8₂₃			
row3		8₂₃							8₁
row4									
row5	8₁₃		8₂						
row6									
row7									
row8	8₂	8₁	8₃						
row9									

Pattern Solution No. 46

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5				8₂₄	8₁₃				
row6									
row7									
row8		8₃₄		8₁	8₂				
row9		8₁₂		8₃	8₄				

Pattern Solution No. 47

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2		8₁					8₂		8₃₄
row3		8₂₃₄						8₁	
row4					8₁₂₄			8₃	
row5									
row6					8₃		8₄		8₁₂
row7									
row8									
row9							8₁₃	8₂₄	

Pattern Solution No. 48

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		1₁				1₂₃	1₄		
row2		1₂				1₁₄	1₃		
row3			1₃₄				1₁₂		
row4		1₃₄	1₁₂						
row5									
row6									
row7									
row8									
row9									

Pattern Solution No. 49

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		7₁₂	7₃₄						
row2									
row3									
row4									
row5									
row6									
row7		7₃	7₁				7₂₄		
row8		7₄	7₂				7₁₃		
row9									

Pattern Solution No. 50

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		1₁₂	1₃₄						
row2									
row3								1₁₃	1₂₄
row4		1₃	1₁					1₂₄	
row5									
row6		1₄	1₂						1₁₃
row7									
row8									
row9									

Pattern Solution No. 51

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	1₁		1₂₃₄						
row2									
row3									
row4									
row5							1₃		1₁₂₄
row6									
row7									
row8	1₂₃						1₁₄		
row9	1₄		1₁				1₂		1₃

Pattern Solution No. 52

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	2₁		2₂				2₃		2₄
row3	2₃₄								2₁₂
row4	2₂		2₁₃₄						
row5									
row6									
row7									
row8							2₁₂₄		
row9									2₃

Pattern Solution No. 53

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2								5 ₂₄	5 ₁₃
row3									
row4	5 ₃₄			5 ₁		5 ₂			
row5	5 ₁₂			5 ₃		5 ₄			
row6									
row7									
row8						5 ₁₃			5 ₂₄
row9				5 ₂₄				5 ₁₃	

Pattern Solution No. 54

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	8 ₁₂								8 ₃₄
row2	8 ₃₄						8 ₁₂		
row3									
row4									
row5									
row6									
row7			8 ₂₄				8 ₃		8 ₁
row8			8 ₁₃				8 ₄		8 ₂
row9									

Pattern Solution No. 55

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	1₁₂		1₃					1₄	
row2									
row3			1₄				1₁	1₂₃	
row4									
row5									
row6									
row7			1₁₂				1₃₄		
row8	1₃₄					1₁₂			
row9						1₃₄	1₂	1₁	

Pattern Solution No. 56

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1							2₁₂₃		2₄
row2									
row3									
row4					2₂	2₃	2₄		2₁
row5									
row6					2₁₄				2₂₃
row7									
row8					2₃	2₁₂₄			
row9									

Pattern Solution No. 57

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5				2_{12}		2_3		2_4	
row6				2_4					2_{123}
row7						2_{24}		2_{13}	
row8									
row9				2_3		2_1		2_2	2_4

Pattern Solution No. 58

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	5_{12}								5_{34}
row2									
row3	5_{34}							5_{12}	
row4									
row5									
row6									
row7		5_{24}						5_3	5_1
row8		5_{13}						5_4	5_2
row9									

Pattern Solution No. 59

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					7_{12}	7_{34}			
row2									
row3									
row4			7_{24}			7_1		7_3	
row5					7_{34}			7_{12}	
row6			7_{13}			7_2		7_4	
row7									
row8									
row9									

Pattern Solution No. 60

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					2_1		2_{23}		2_4
row2									
row3					2_{234}				2_1
row4									
row5									
row6									
row7									
row8	2_{134}								2_2
row9	2_2						2_{14}		2_3

Pattern Solution No. 61

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		3₁			3₃₄			3₂	
row2	3₂₃								3₁₄
row3		3₄			3₁₂			3₃	
row4									
row5									
row6									
row7		3₂₃						3₁₄	
row8									
row9	3₁₄								3₂₃

Pattern Solution No. 62

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4₁				4₂			4₃	4₄
row2	4₂₃₄				4₁				
row3					4₃₄				4₁₂
row4									
row5									
row6									
row7						4₁₂₄			4₃
row8									
row9						4₃		4₁₂₄	

Pattern Solution No. 63

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	1₁₂	1₃							1₄₅
row3	1₄₅								1₁₂₃
row4									
row5									
row6									
row7									
row8	1₃	1₁₄					1₂₅		
row9		1₂₅					1₁₃₄		

Pattern Solution No. 64

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4						7₁₃₄		7₂	
row5			7₁₂					7₃	7₄
row6			7₃₄			7₂			7₁
row7					7₁₄				7₂₃
row8					7₂₃			7₁₄	
row9									

Pattern Solution No. 65

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2			3_{12}			3_{34}			
row3			3_{34}			3_{12}			
row4				3_{13}	3_{24}				
row5									
row6									
row7									
row8				3_{24}	3_{13}				
row9									

Pattern Solution No. 66

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5							1_4	1_{123}	
row6	1_1	1_{234}							
row7									
row8	1_2	1_1					1_3	1_4	
row9	1_{34}						1_{12}		

Pattern Solution No. 67

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	7_{123}								7_4
row2									
row3			7_4				7_{12}		7_3
row4									
row5								7_{234}	7_1
row6	7_4		7_{123}						
row7									
row8							7_{34}	7_1	7_2
row9									

Pattern Solution No. 68

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4							7_{24}	7_{13}	
row5									
row6	7_{12}		7_{34}						
row7			7_{12}				7_3	7_4	
row8	7_{34}						7_1	7_2	
row9									

Pattern Solution No. 69

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2				2_1			2_{234}		
row3					2_2	2_{34}	2_1		
row4				2_3	2_4	2_{12}			
row5									
row6									
row7				2_{24}	2_{13}				
row8									
row9									

Pattern Solution No. 70

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4			5_1		5_3		5_{24}		
row5			5_2		5_4		5_{13}		
row6			5_{34}		5_{12}				
row7									
row8									
row9									

Pattern Solution No. 71

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		4₁₂₃		4₄					
row2									
row3		4₄		4₁	4₂₃				
row4									
row5									
row6				4₂	4₁₄	4₃			
row7									
row8				4₃		4₁₂₄			
row9									

Pattern Solution No. 72

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	5₁						5₂₃		
row3	5₂₃								5₁
row4				5₁					5₂₃
row5		5₂	5₃				5₁		
row6		5₁				5₂₃			
row7				5₂₃		5₁			
row8		5₃	5₁₂						
row9									

Pattern Solution No. 73

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	2_{12}						2_{34}		
row2	2_3				2_{24}			2_1	
row3	2_4				2_{13}			2_2	
row4							2_{12}		2_{34}
row5									
row6									
row7									
row8								2_{34}	2_{12}
row9									

Pattern Solution No. 74

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3				4_{123}	4_4				
row4					4_{12}			4_{34}	
row5				4_4		4_3		4_1	4_2
row6									
row7								4_2	4_{134}
row8					4_3	4_{124}			
row9									

Pattern Solution No. 75

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					9₂₄	9₁₃₅			
row3	9₁₂	9₃₄₅							
row4									
row5									
row6				9₂₄₅	9₁₃				
row7									
row8	9₃₄	9₁₂			9₅				
row9	9₅			9₁₃		9₂₄			

Pattern Solution No. 76

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					9₂₄	9₁₃₅			
row3	9₁₂	9₃₄₅							
row4									
row5									
row6				9₂₄₅	9₁₃				
row7									
row8	9₃₄	9₁₂			9₅				
row9	9₅			9₁₃		9₂₄			

Pattern Solution No. 77

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5	1₁₂			1₃		1₄₅			
row6	1₃₄₅					1₁₂			
row7				1₁₄		1₃		1₂₅	
row8									
row9				1₂₅				1₁₃₄	

Pattern Solution No. 78

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		9₁₂						9₃₄	
row2	9₃					9₂₄	9₁		
row3		9₄				9₁₃	9₂		
row4							9₃₄	9₁₂	
row5	9₁₂₄	9₃							
row6									
row7									
row8									
row9									

Pattern Solution No. 79

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3					3_{134}	3_2			
row4	3_1					3_4	3_{23}		
row5	3_{234}					3_1			
row6					3_2	3_3	3_{14}		
row7									
row8									
row9									

Pattern Solution No. 80

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5	3_{12}			3_{34}	3_5				
row6	3_{345}			3_{12}					
row7		3_{245}			3_{13}				
row8		3_{13}		3_5	3_{24}				
row9									

Pattern Solution No. 81

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				5 ₁₂	5 ₃₄	5 ₅₆			
row2									
row3									
row4									
row5									
row6				5 ₃₅	5 ₁₆	5 ₂₄			
row7									
row8									
row9				5 ₄₆	5 ₂₅	5 ₁₃			

Pattern Solution No. 82

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4									
row5				5 ₁₂	5 ₃₄		5 ₅		
row6				5 ₅			5 ₁₃		5 ₂₄
row7							5 ₂₄		5 ₁₃₅
row8									
row9				5 ₃₄	5 ₁₂₅				

Pattern Solution No. 83

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3	1₁₂	1₃₄	1₅						
row4		1₅	1₁₃						1₂₄
row5			1₂₄						1₁₃₅
row6									
row7									
row8	1₃₄₅	1₁₂							
row9									

Pattern Solution No. 84

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4₁₂	4₃₄							4₅
row2									
row3		4₅					4₁₃		4₂₄
row4									
row5									
row6									
row7	4₃	4₁					4₂₄₅		
row8									
row9	4₄₅	4₂							4₁₃

Pattern Solution No. 85

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			8₁₂					8₃₄₅	
row2		8₃₄				8₅		8₁₂	
row3		8₅		8₁₃		8₂₄			
row4									
row5		8₁₂	8₃₄₅						
row6									
row7				8₂₄₅		8₁₃			
row8									
row9									

Pattern Solution No. 86

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			3₁	3₂	3₃₄				
row2									
row3	3₂₃₄				3₁				
row4									
row5			3₂₃₄					3₁	
row6	3₁							3₂₃₄	
row7									
row8									
row9				3₁₃₄	3₂				

Pattern Solution No. 87

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3								4_{235}	4_{146}
row4	4_{123}				4_{45}			4_6	
row5	4_{456}				4_{12}				4_3
row6					4_{36}			4_{14}	4_{25}
row7									
row8									
row9									

Pattern Solution No. 88

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				2_{12}		2_{345}			
row2									
row3									
row4									
row5				2_3	2_4	2_1		2_{25}	
row6					2_5	2_2		2_{134}	
row7				2_{45}	2_{123}				
row8									
row9									

Pattern Solution No. 89

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	7_{123}	7_{456}							
row2									
row3									
row4									
row5	7_4	7_1	7_{2356}						
row6								7_{1346}	
row7									
row8	7_5	7_2					7_{1346}		
row9	7_6	7_3	7_{14}					7_{25}	

Pattern Solution No. 90

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		1_{3456}	1_{12}						
row5									
row6									
row7			1_3	1_{14}			1_{256}		
row8		1_{12}	1_{45}	1_{36}					
row9			1_6	1_{25}			1_{134}		

Pattern Solution No. 91

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2					1_{256}	1_{134}			
row3									
row4									
row5	1_{35}	1_{12}						1_{46}	
row6	1_{46}							1_{1235}	
row7		1_{3456}			1_1	1_2			
row8	1_{12}				1_{34}	1_{56}			
row9									

Pattern Solution No. 92

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2				9_3				9_{1245}	
row3				9_4	9_1	9_{25}			9_3
row4									
row5					9_{345}				9_{12}
row6				9_{12}				9_3	9_{45}
row7				9_5	9_2	9_{134}			
row8									
row9									

Pattern Solution No. 93

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		3_5		3_{123}	3_4				
row5									
row6		3_{1234}			3_5				
row7	3_1				3_3			3_{245}	
row8	3_2			3_{45}				3_{13}	
row9	3_{345}				3_{12}				

Pattern Solution No. 94

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2		2_1					2_{2345}		
row3		2_{23}	2_{45}						2_1
row4		2_{45}	2_{123}						
row5									
row6									
row7					2_{35}		2_1		2_{24}
row8					2_{124}				2_{35}
row9									

Pattern Solution No. 95

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4_{12}		4_3	4_{456}					
row2	4_{45}		4_6	4_{123}					
row3									
row4			4_{1245}						4_{36}
row5									
row6	4_{36}							4_{14}	4_{25}
row7									
row8								4_{2356}	4_{14}
row9									

Pattern Solution No. 96

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1							1_{15}	1_{36}	1_{24}
row2									
row3									
row4		1_{12}					1_3	1_{45}	1_6
row5		1_{3456}						1_{12}	
row6									
row7									
row8							1_{246}		1_{135}
row9									

Pattern Solution No. 97

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1							2_{256}	2_{134}	
row2									
row3									
row4									
row5			2_{3456}				2_1	2_2	
row6			2_{12}				2_3		2_{456}
row7		2_{1236}					2_4	2_5	
row8		2_{45}						2_6	2_{123}
row9									

Pattern Solution No. 98

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4		6_{12}				6_{56}		6_{34}	
row5			6_{56}			6_{1234}			
row6		6_{34}						6_{1256}	
row7		6_5	6_{13}				6_{246}		
row8		6_6	6_{24}				6_{135}		
row9									

Pattern Solution No. 99

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					7_{12}		7_{356}		7_{47}
row2					7_{34}	7_{567}	7_1		7_2
row3									
row4									
row5									
row6									
row7					7_{67}	7_{1234}			7_5
row8									
row9					7_5		7_{247}		7_{136}

Pattern Solution No. 100

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1							2_2	2_3	2_{14567}
row2				2_{46}		2_{12357}			
row3									
row4									
row5							2_{367}	2_{1245}	
row6									
row7	2_{46}			2_{12357}					
row8	2_{57}					2_{46}	2_1		2_{23}
row9	2_{123}						2_{45}	2_{67}	

Pattern Solution No. 101

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3		3_{1236}	3_{45}						
row4		3_4	3_3	3_{15}		3_{26}			
row5									
row6		3_5	3_{126}	3_{34}					
row7									
row8				3_{26}		3_{1345}			
row9									

Pattern Solution No. 102

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		2_{12}	2_{34}				2_{5678}		
row2									
row3	2_{56}		2_{78}				2_{1234}		
row4	2_{137}	2_5							2_{2468}
row5									
row6	2_{248}		2_6						2_{1357}
row7									
row8		2_{34678}	2_{125}						
row9									

Pattern Solution No. 103

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	9_1	9_{234}						9_5	
row2									
row3	9_5							9_{1234}	
row4									
row5	9_2	9_{15}	9_3		9_4				
row6			9_4		9_{1235}				
row7	9_{34}		9_{125}						
row8									
row9									

Pattern Solution No. 104

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	3_{1234}	3_{56}							
row2									
row3									
row4	3_{56}	3_{12}		3_3	3_4				
row5									
row6		3_{34}		3_{15}	3_{26}				
row7									
row8				3_{246}	3_{135}				
row9									

Pattern Solution No. 105

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				2_5		2_6			2_{1234}
row2	2_{12}		2_{34}						2_{56}
row3	2_{56}			2_{13}		2_{24}			
row4									
row5				2_{246}		2_{135}			
row6									
row7									
row8									
row9	2_{34}		2_{1256}						

Pattern Solution No. 106

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	8 ₁	8 ₂₃₄₅							
row3									
row4									
row5				8 ₄		8 ₁₂₃₅			
row6	8 ₂₃₄		8 ₁₅						
row7	8 ₅	8 ₁	8 ₂	8 ₃		8 ₄			
row8									
row9			8 ₃₄	8 ₁₂₅					

Pattern Solution No. 107

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2			1_{12}					1_{3456}	
row3		1_{34}	1_{56}				1_{12}		
row4									
row5									
row6									
row7									
row8		1_{246}					1_{35}	1_1	
row9			1_{135}				1_{46}	1_2	

Pattern Solution No. 108

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2			6_{12}				6_{34}	6_{56}	
row3			6_{3456}					6_{12}	
row4							6_{15}	6_3	6_4
row5									
row6				6_{1345}			6_{26}		
row7								6_4	6_{12356}
row8									
row9									

Pattern Solution No. 109

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4_1						4_{23}	4_{45}	
row2		4_{2345}							4_1
row3									
row4							4_{45}	4_{123}	
row5									
row6									
row7	4_{35}	4_1							4_{24}
row8									
row9	4_{24}						4_1		4_{35}

Pattern Solution No. 110

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1		8 ₁₂	8 ₆₇₈			8 ₃₄₅			
row2		8 ₃	8 ₄₅		8 ₂₈	8 ₁₆₇			
row3									
row4		8 ₄₆			8 ₁₃₅₇	8 ₂₈			
row5		8 ₅₇₈	8 ₁₂₃		8 ₄₆				
row6									
row7									
row8									
row9									

Pattern Solution No. 111

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1					6_5	6_{1234}			
row2									
row3									
row4	6_1				6_3				6_{245}
row5			6_{345}		6_{12}				
row6	6_2				6_4	6_5			6_{13}
row7									
row8	6_{345}		6_{12}						
row9									

Pattern Solution No. 112

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			4_{23456}		4_1				
row2			4_1	4_{23}	4_4	4_{56}			
row3									
row4				4_{56}		4_{1234}			
row5									
row6									
row7				4_{14}	4_{25}		4_{36}		
row8									
row9					4_{36}		4_{1245}		

Pattern Solution No. 113

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	1 ₁	1 ₂		1 ₃₄				1 ₅	1 ₆
row2	1 ₃₅₆							1 ₁₂₄	
row3	1 ₄			1 ₁₂₅₆					1 ₃
row4									
row5									
row6	1 ₂	1 ₁₃₄₅₆							
row7									
row8								1 ₃₆	1 ₁₂₄₅
row9									

Pattern Solution No. 114

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4_{123}			4_{478}				4_5	4_6
row2	4_{456}						4_{127}	4_{38}	
row3	4_{78}			4_{12356}					4_4
row4								4_{246}	4_{13578}
row5									
row6									
row7									
row8							4_{34568}	4_{17}	4_2
row9									

Pattern Solution No. 115

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2	1 ₁₂₃₄		1 ₅						
row3									
row4						1 ₄	1 ₃		1 ₁₂₅
row5						1 ₁₂₃₅	1 ₄		
row6									
row7	1 ₅		1 ₁				1 ₂		1 ₃₄
row8									
row9			1 ₂₃₄				1 ₁₅		

Pattern Solution No. 116

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	7_{1235}	7_{46}							
row2									
row3				7_{23}	7_{1456}				
row4									
row5									
row6									
row7		7_{123}		7_{456}					
row8	7_6				7_3				7_{1245}
row9	7_4	7_5		7_1	7_2				7_{36}

Pattern Solution No. 117

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2		8 ₅₆₇₈						8 ₁₂₃₄	
row3	8 ₁₂₃₄						8 ₅₇		8 ₆₈
row4	8 ₅₆			8 ₃₄₇₈			8 ₁		8 ₂
row5		8 ₁₂₃₄						8 ₅₆₇₈	
row6	8 ₇₈			8 ₁₂₅₆			8 ₃		8 ₄
row7									
row8									
row9									

Pattern Solution No. 118

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				2_{123}	2_{45}		2_{67}		
row2									
row3					2_{67}		2_{12345}		
row4		2_{1357}	2_{246}						
row5									
row6									
row7		2_{246}	2_{357}		2_1				
row8									
row9			2_1	2_{4567}	2_{23}				

Pattern Solution No. 119

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1									
row2									
row3									
row4	1_{123}				1_{456}				
row5							1_{14}	1_{2356}	
row6	1_{456}				1_{123}				
row7			1_{36}				1_{25}	1_{14}	
row8			1_{1245}				1_{36}		
row9									

Pattern Solution No. 120

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1	4_1		4_{23}					4_{4567}	
row2	4_4		4_{56}	4_{1237}					
row3	4_7			4_{456}				4_{123}	
row4									
row5									
row6									
row7									
row8	4_{25}		4_{147}		4_{36}				
row9	4_{36}				4_{12457}				

Pattern Solution No. 120

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1			6_{123}				6_4		
row2									
row3	6_4							6_1	6_{23}
row4			6_4				6_{123}		
row5				6_{12}	6_3			6_K	6_4
row6	6_{123}				6_4				
row7				6_{34}				6_2	6_1
row8					6_{12}			6_{34}	
row9									

Note the killer in square (58), which has no 6-candidate.

Pattern Solution No. 120

To make this solution easier to calculate, it is worth noting the 3-wing in the shaded squares, allowing the 9-candidates to be removed from the vertically striped squares, (54), (95) & (98):

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				9	9				
row2									
row3									
row4									
row5				9		9			9
row6				9	9			9	
row7					9			9	
row8			9			9			9
row9			9		9	9		9	9

see the next page for the solution to the simplified 9-pattern.

Pattern Solution No. 120 continued:

	col 1	col 2	col 3	col 4	col 5	col 6	col 7	col 8	col 9
row1				9 ₁₂₅₆					
row2									
row3									
row4									
row5						9 ₁₂			9 ₃₄₅₆
row6				9 ₃₄	9 ₅₆			9 ₁₂	
row7					9 ₁₂			9 ₃₄₅₆	
row8			9 ₂₄₆			9 ₃₅			9 ₁
row9			9 ₁₃₅			9 ₄₆			9 ₂

Note that this problem *could* have been solved leaving the killer candidates in squares (54), (95) & (98). It would have been much more confusing.

