chapt 4
subsets

The subsets rule can be succinctly summed up as follows: When a certain number of different candidate digits in a row, column, or box are shared among the same number of cells (two digits occupy two cells, three digits occupy three cells, etc.), any of those digits can be removed as candidates from anywhere else they appear in that row, box, or column.

chapt 5
interaction

In summary, interaction occurs when a certain number can appear in a row or column only in cells that also happen to lie entirely within a box. Then that digit can be removed as candidates from anywhere else in that box. Similarly, if the only places for a number in a box lie in one row (or one column), then that number can be eliminated from the the candidates in that row (or column) outside the box.

chapter 6
candidate-free
solving

Note how these numbers are different from candidates. They are not simply possibilities. They are definite. It's just that their exact placement is not certain.

chapter 7
X-wing family

This is just like the swordfish, but involving four rows instead of three. Note again that it doesn't have to be exactly two occurrences of each number in the rows for this to work. As long as they all fall in four columns, it doesn't matter if the rows have 2, 3, or 4 possible places for 1's to go.

chapter 4 subsets

3 1

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

3 2

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

3 3

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

3 4

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

3 5

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

3 6

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

chapter 5 interaction

43

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

44

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

45

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

46

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

47

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

48

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

55

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

56

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

57

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

58

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

59

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

60

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

67

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

68

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

69

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

70

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

71

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

72

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