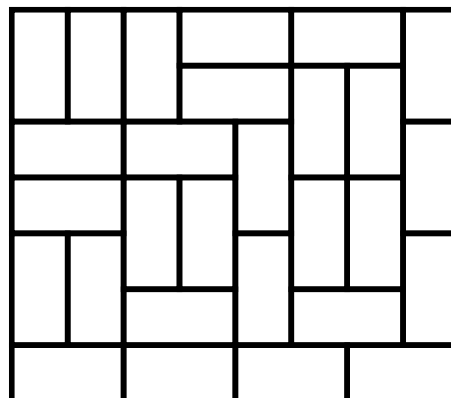


Dominos

This puzzle I call Dominos, and it is very easy to construct your own puzzle. Take a box of dominos and place them face up on a table in a rectangular block, 4 domino lengths \times 7 domino widths. Now write the numbers in a grid without defining the edges of the dominos. The puzzle is to find out where the domino edges are, knowing that there are 28 dominos with all the combination of numbers from 0 to 6, with no duplicates. Here is an example and a solution.

5	5	5	2	5	2	2	2
0	1	3	1	1	1	3	6
3	1	5	4	2	2	0	5
3	6	3	4	3	2	6	5
1	4	3	4	6	0	0	6
6	6	0	0	5	0	1	6
0	4	4	1	4	2	4	3



Although this answer gives the domino outlines, at the end of this file the answers will include the domino numbers.

A friend suggested this as a puzzle to me, and I have not seen it printed anywhere. We chatted away about the various strategies needed for this puzzle, and we agreed that a good start is to look for the occurrences of adjacent pairs of the same number, knowing that there has to be one double domino for each of the seven numbers. Of course things are not that simple, as you will soon find rows or columns with three or four of the same digits as neighbours, but with a bit more thought these puzzles will yield! When trying to solve these puzzles we were for ever drawing out helpful diagrams like this one.

								0
								1
								2
								3
								4
								5
								6

Coming back to these puzzles after about eight years I had forgotten just how demanding they could be. I then remembered how to grade these puzzles, and now have two pages at a comfortable level, and one page, from 17 to 24, at the next level up. If there is a demand, there is still another level!

Dominos

0	4	2	1	1	1	3	2
3	6	3	4	4	1	2	0
4	5	6	6	5	3	5	1
0	5	2	6	0	3	6	3
0	2	1	0	1	6	0	1
4	2	4	2	4	6	2	5
5	5	5	6	4	3	0	3

1

2	6	5	1	2	2	3	3
6	3	4	1	1	5	5	6
6	0	2	0	5	4	0	3
6	4	4	3	2	5	0	4
0	2	3	1	4	0	6	6
0	1	1	3	5	5	6	1
1	0	2	3	2	4	4	5

2

5	6	5	1	2	6	3	6
5	1	2	6	1	1	1	0
6	2	4	3	3	2	3	2
4	3	4	5	5	1	0	1
2	2	5	1	4	3	0	5
6	6	3	0	0	4	0	0
4	5	2	4	4	3	0	6

3

3	0	1	3	6	0	0	1
1	0	5	6	6	1	1	4
4	4	4	2	4	4	6	6
2	6	5	3	0	1	2	3
0	1	0	2	2	2	2	6
3	3	4	3	1	2	5	5
4	5	5	5	5	6	0	3

4

2	2	4	3	6	5	2	6
6	6	3	2	1	1	0	4
2	3	0	4	2	6	6	5
3	5	0	3	1	2	3	5
0	3	4	1	0	1	4	4
4	3	5	0	5	1	0	1
4	2	5	0	6	5	1	6

5

0	4	2	3	4	2	5	1
0	1	4	6	3	4	4	1
5	5	6	1	1	6	1	2
0	3	3	0	4	5	5	4
3	4	2	1	5	6	0	0
5	0	5	1	2	2	3	6
3	6	6	6	0	2	2	3

6

1	1	2	3	6	5	1	0
1	3	2	2	2	4	0	5
0	1	3	1	1	0	5	5
4	0	0	4	3	2	6	4
6	0	4	5	4	2	0	2
3	3	3	6	4	5	3	5
4	5	2	6	6	1	6	6

7

1	3	5	5	3	6	6	0
1	4	0	5	3	4	6	5
2	4	0	3	3	1	5	0
1	3	1	2	2	0	5	1
6	4	1	2	4	2	1	0
4	5	4	5	2	0	6	3
0	2	2	6	3	6	4	6

8

Dominos

2	2	1	1	5	3	3	2
6	6	5	2	6	4	0	0
4	2	5	6	4	2	0	6
3	1	3	0	4	6	5	4
6	0	2	6	0	3	1	3
1	3	4	4	1	0	5	1
2	5	0	1	5	3	5	4

9

6	1	4	0	4	4	2	4
2	6	6	3	3	0	5	3
6	4	1	6	1	4	1	2
5	5	0	3	4	2	1	6
1	0	2	0	4	5	1	5
2	3	5	0	6	2	2	3
1	0	5	3	5	0	6	3

10

2	0	0	1	3	3	4	4
5	4	2	5	5	3	4	4
1	4	4	1	1	3	0	0
6	2	3	6	1	6	5	5
4	2	5	5	0	3	2	2
3	1	5	1	6	6	2	2
0	1	3	6	6	6	0	0

11

1	5	1	2	3	2	3	4
5	0	4	6	3	0	2	4
3	4	0	2	5	6	2	5
2	1	0	2	0	6	0	2
4	1	3	0	4	6	3	4
5	6	6	4	3	6	5	5
5	0	1	6	1	1	1	3

12

3	4	0	0	4	5	6	1
4	0	1	3	4	0	2	4
2	6	1	6	4	0	1	1
6	6	6	3	1	0	4	0
5	5	2	5	5	3	5	2
3	4	2	3	3	1	6	2
1	0	3	2	5	5	6	2

13

6	5	0	3	5	2	3	4
6	2	0	3	5	5	3	4
1	0	5	0	3	0	4	2
4	6	1	4	0	1	1	2
3	5	1	4	1	5	1	2
4	0	3	2	6	6	1	6
5	2	3	6	4	0	2	6

14

3	0	3	4	4	1	1	2
6	2	1	6	5	3	0	3
6	2	0	6	6	6	0	4
0	3	5	4	1	4	0	5
1	3	2	3	2	0	4	1
4	5	2	5	0	3	4	5
2	5	1	6	6	5	2	1

15

0	0	0	3	0	3	2	5
3	5	2	6	0	3	4	0
3	6	6	6	1	2	2	3
4	1	4	5	1	2	5	5
6	2	4	2	5	1	1	2
4	0	3	5	6	0	4	5
6	1	4	1	4	6	3	1

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Dominos

5	1	5	5	6	0	2	1
3	2	4	5	3	0	6	6
1	0	2	2	2	3	0	4
3	3	1	5	2	3	1	0
4	5	6	6	0	4	1	3
4	4	4	5	2	6	6	6
0	2	1	3	1	4	0	5

17

2	3	4	2	3	6	6	5
4	2	6	3	4	2	6	5
0	4	4	1	1	2	0	1
4	3	3	5	6	6	3	4
5	4	3	0	1	5	3	5
5	6	0	2	1	0	0	6
1	1	0	5	0	2	2	1

18

0	1	1	2	2	3	0	4
0	3	5	5	3	1	5	2
6	4	0	0	0	2	5	6
4	3	3	1	1	4	4	5
5	0	2	0	3	6	4	1
4	6	5	6	1	3	3	4
5	2	1	6	2	6	6	2

19

5	3	4	6	6	5	4	2
6	6	6	6	6	5	3	2
0	2	3	2	0	1	6	1
0	3	5	5	1	3	2	0
1	0	0	3	4	3	5	4
3	1	4	5	0	1	1	4
4	2	4	5	0	2	2	1

20

6	1	2	6	0	1	0	3
6	4	6	0	1	2	5	6
2	4	1	2	3	3	5	4
2	3	3	4	0	2	1	3
1	2	5	2	4	5	1	5
1	0	5	6	0	4	4	0
6	3	3	4	0	6	5	5

21

0	2	3	4	4	3	5	1
3	3	0	1	6	6	4	4
0	5	6	2	2	3	4	2
2	4	4	2	0	1	0	5
5	6	3	6	5	6	1	2
4	1	2	3	5	6	0	5
0	0	1	3	5	1	1	6

22

0	5	5	0	0	2	5	5
2	5	1	3	4	2	2	4
1	4	5	5	4	1	2	4
3	0	3	1	2	2	4	0
4	6	6	6	6	4	1	0
6	1	3	6	6	6	3	3
5	3	0	0	2	3	1	1

23

6	2	6	0	0	3	5	0
3	1	3	2	5	4	4	4
3	4	1	3	5	2	2	6
0	1	5	4	3	2	1	0
2	2	3	4	0	4	4	5
2	3	1	6	0	6	1	0
5	5	5	6	6	6	1	1

24

Dominos Solutions

0	4	2	1	1	1	3	2
3	6	3	4	4	1	2	0
4	5	6	6	5	3	5	1
0	5	2	6	0	3	6	3
0	2	1	0	1	6	0	1
4	2	4	2	4	6	2	5
5	5	5	6	4	3	0	3

1

2	6	5	1	2	2	3	3
6	3	4	1	1	5	5	6
6	0	2	0	5	4	0	3
6	4	4	3	2	5	0	4
0	2	3	1	4	0	6	6
0	1	1	3	5	5	6	1
1	0	2	3	2	4	4	5

2

5	6	5	1	2	6	3	6
5	1	2	6	1	1	1	0
6	2	4	3	3	2	3	2
4	3	4	5	5	1	0	1
2	2	5	1	4	3	0	5
6	6	3	0	0	4	0	0
4	5	2	4	4	3	0	6

3

3	0	1	3	6	0	0	1
1	0	5	6	6	1	1	4
4	4	4	2	4	4	6	6
2	6	5	3	0	1	2	3
0	1	0	2	2	2	2	6
3	3	4	3	1	2	5	5
4	5	5	5	5	6	0	3

4

2	2	4	3	6	5	2	6
6	6	3	2	1	1	0	4
2	3	0	4	2	6	6	5
3	5	0	3	1	2	3	5
0	3	4	1	0	1	4	4
4	3	5	0	5	1	0	1
4	2	5	0	6	5	1	6

5

0	4	2	3	4	2	5	1
0	1	4	6	3	4	4	1
5	5	6	1	1	6	1	2
0	3	3	0	4	5	5	4
3	4	2	1	5	6	0	0
5	0	5	1	2	2	3	6
3	6	6	6	0	2	2	3

6

1	1	2	3	6	5	1	0
1	3	2	2	2	4	0	5
0	1	3	1	1	0	5	5
4	0	0	4	3	2	6	4
6	0	4	5	4	2	0	2
3	3	3	6	4	5	3	5
4	5	2	6	6	1	6	6

7

1	3	5	5	3	6	6	0
1	4	0	5	3	4	6	5
2	4	0	3	3	1	5	0
1	3	1	2	2	0	5	1
6	4	1	2	4	2	1	0
4	5	4	5	2	0	6	3
0	2	2	6	3	6	4	6

8

Dominos Solutions

2	2	1	1	5	3	3	2
6	6	5	2	6	4	0	0
4	2	5	6	4	2	0	6
3	1	3	0	4	6	5	4
6	0	2	6	0	3	1	3
1	3	4	4	1	0	5	1
2	5	0	1	5	3	5	4

9

6	1	4	0	4	4	2	4
2	6	6	3	3	0	5	3
6	4	1	6	1	4	1	2
5	5	0	3	4	2	1	6
1	0	2	0	4	5	1	5
2	3	5	0	6	2	2	3
1	0	5	3	5	0	6	3

10

2	0	0	1	3	3	4	4
5	4	2	5	5	3	4	4
1	4	4	1	1	3	0	0
6	2	3	6	1	6	5	5
4	2	5	5	0	3	2	2
3	1	5	1	6	6	2	2
0	1	3	6	6	6	0	0

11

1	5	1	2	3	2	3	4
5	0	4	6	3	0	2	4
3	4	0	2	5	6	2	5
2	1	0	2	0	6	0	2
4	1	3	0	4	6	3	4
5	6	6	4	3	6	5	5
5	0	1	6	1	1	1	3

12

3	4	0	0	4	5	6	1
4	0	1	3	4	0	2	4
2	6	1	6	4	0	1	1
6	6	6	3	1	0	4	0
5	5	2	5	5	3	5	2
3	4	2	3	3	1	6	2
1	0	3	2	5	5	6	2

13

6	5	0	3	5	2	3	4
6	2	0	3	5	5	3	4
1	0	5	0	3	0	4	2
4	6	1	4	0	1	1	2
3	5	1	4	1	5	1	2
4	0	3	2	6	6	1	6
5	2	3	6	4	0	2	6

14

3	0	3	4	4	1	1	2
6	2	1	6	5	3	0	3
6	2	0	6	6	6	0	4
0	3	5	4	1	4	0	5
1	3	2	3	2	0	4	1
4	5	2	5	0	3	4	5
2	5	1	6	6	5	2	1

15

0	0	0	3	0	3	2	5
3	5	2	6	0	3	4	0
3	6	6	6	1	2	2	3
4	1	4	5	1	2	5	5
6	2	4	2	5	1	1	2
4	0	3	5	6	0	4	5
6	1	4	1	4	6	3	1

16

Dominos Solutions

5	1	5	5	6	0	2	1
3	2	4	5	3	0	6	6
1	0	2	2	2	3	0	4
3	3	1	5	2	3	1	0
4	5	6	6	0	4	1	3
4	4	4	5	2	6	6	6
0	2	1	3	1	4	0	5

17

2	3	4	2	3	6	6	5
4	2	6	3	4	2	6	5
0	4	4	1	1	2	0	1
4	3	3	5	6	6	3	4
5	4	3	0	1	5	3	5
5	6	0	2	1	0	0	6
1	1	0	5	0	2	2	1

18

0	1	1	2	2	3	0	4
0	3	5	5	3	1	5	2
6	4	0	0	0	2	5	6
4	3	3	1	1	4	4	5
5	0	2	0	3	6	4	1
4	6	5	6	1	3	3	4
5	2	1	6	2	6	6	2

19

5	3	4	6	6	5	4	2
6	6	6	6	6	5	3	2
0	2	3	2	0	1	6	1
0	3	5	5	1	3	2	0
1	0	0	3	4	3	5	4
3	1	4	5	0	1	1	4
4	2	4	5	0	2	2	1

20

6	1	2	6	0	1	0	3
6	4	6	0	1	2	5	6
2	4	1	2	3	3	5	4
2	3	3	4	0	2	1	3
1	2	5	2	4	5	1	5
1	0	5	6	0	4	4	0
6	3	3	4	0	6	5	5

21

0	2	3	4	4	3	5	1
3	3	0	1	6	6	4	4
0	5	6	2	2	3	4	2
2	4	4	2	0	1	0	5
5	6	3	6	5	6	1	2
4	1	2	3	5	6	0	5
0	0	1	3	5	1	1	6

22

0	5	5	0	0	2	5	5
2	5	1	3	4	2	2	4
1	4	5	5	4	1	2	4
3	0	3	1	2	2	4	0
4	6	6	6	6	4	1	0
6	1	3	6	6	6	3	3
5	3	0	0	2	3	1	1

23

6	2	6	0	0	3	5	0
3	1	3	2	5	4	4	4
3	4	1	3	5	2	2	6
0	1	5	4	3	2	1	0
2	2	3	4	0	4	4	5
2	3	1	6	0	6	1	0
5	5	5	6	6	6	1	1

24