



**MEPHAM GROUP**

# **PUZZLE PACK**

**Killer Sudoku**

**Tough**

**June**

**Solutions**

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[www.sudoku.org.uk](http://www.sudoku.org.uk)

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# Introduction

We're sure that we don't need to tell you that sudoku puzzles seem to be everywhere you look nowadays. And of course we have a lot to do with that, because our puzzles are syndicated in newspapers like the *Los Angeles Times*, *The Daily Telegraph* and many others throughout the world. Over three million books featuring our sudoku have now been sold in almost every language and every country.

However, many of the puzzles available are not ours, and maybe you've noticed the difference, especially with some sudoku published on the web and in cheap books.

As a professional puzzle compilers, we've always striven for the highest quality in our sudoku. For example, we have always guaranteed that every puzzle has a unique solution; something that is not always true about many of the puzzles that don't bear our name.

A huge amount of work has gone into ensuring that you will experience the most satisfying solving experience with a *Mepham Group* sudoku. If you start a gentle sudoku, you'll expect to solve it fairly quickly, and we have ensured that there will be a smooth path to a solution in this grade of puzzle. However, if you enjoy a real mental tussle and are looking for something that will keep you occupied for an hour, or maybe more, then our diabolical sudoku will provide just what you need.

These puzzle packs have been carefully assembled using accurately graded puzzles that carry our guarantee of satisfaction. We're confident that you will gain hours of enjoyment from these puzzles no matter what level of difficulty you have chosen.

Have fun!

**01**

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

**02**

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

**03**

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

**04**

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

**05**

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

**06**

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

07

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

08

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

09

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

10

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

11

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

12

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

13

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

14

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

15

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

16

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

17

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

18

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

19

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

20

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

21

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

22

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

23

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

24

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

25

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

26

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

27

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

28

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

29

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

30

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



31

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

32

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

33

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

34

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

35

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

36

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

37

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

38

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

39

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

40

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

41

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

42

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

43

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

44

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

45

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

46

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

47

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

48

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

49

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

50

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