



MEPHAM GROUP

PUZZLE PACK

KAKURO

Mixed

June

Solutions

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Introduction

We're sure that we don't need to tell you that kakuro 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.

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

As a professional puzzle compilers, we've always striven for the highest quality in our kakuro. 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* kakuro. If you start a gentle kakuro, 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 kakuro 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

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

02

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

03

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

04

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

05

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

06

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

07

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

08

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

09

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

10

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

11

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

12

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

13

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

14

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

15

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

16

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

17

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

18

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

19

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

20

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

21

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

22

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

23

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

24

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

25

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

26

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

27

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

28

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

29

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

30

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

31

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

32

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

33

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

34

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

35

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

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

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

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

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

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

41

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

42

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

43

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

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

45

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

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

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

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

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

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