

DAY 22**Opener****Main Activity****Closer****Choice Time**

Box the Numbers

Materials and Prep

Box the Number game sheets, paper, pencils or crayons.

How to Play

Box the Numbers is a game for two players, played on a small grid of dots. On your turn, add a vertical or horizontal edge between neighboring dots. If you complete a square, claim the number in your box and go again. Keep track of the score by coloring in your square, or writing your initial inside it.

Whoever has the highest score at the end wins.

Launch

Box the Numbers is exactly like the classic game Dots and Boxes, except that when you complete a box, you don't simply get a point. Instead, your score changes by whatever number you boxed.

Demonstrate a game by choosing a volunteer and playing in front of the class. Play on a 3 by 3 gameboard so you have time to finish the entire game, and demonstrate adding up your total score.

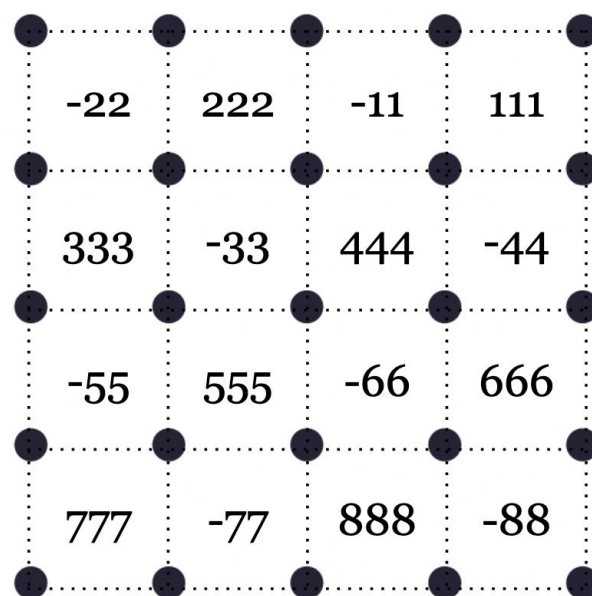
Work

Student play in pairs around the room. Circulate to challenge them to games, or help them total their scores.

After some time has passed, have student pairs combine to play a 2-against-2 team game against another student pair. Students can play with different game boards for more variety or challenge.

Tips for the Classroom

1. Play enough demonstration games with students so that the rules are clear. (One is usually enough.)
2. Use different colored crayons or pencils while playing for a clearer game.
3. Let students make their own boards and play with them, if they're motivated to try.



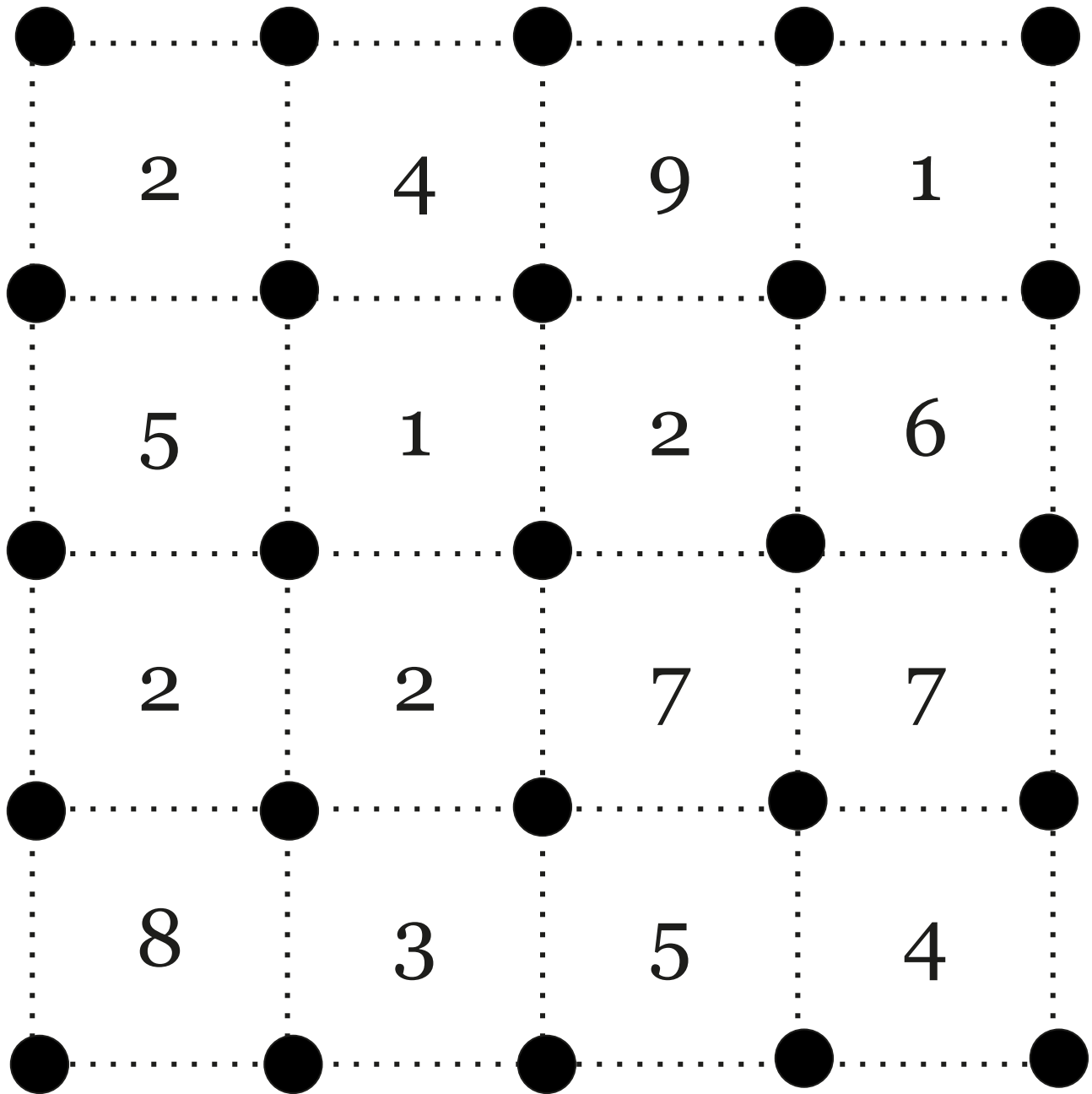
Launch Key Points

- Keep Demo brief enough to generate excitement about playing.
- Make sure students have a system for totaling their score either as they play, or after the numbers are boxed.

Prompts and Questions

- Is it better to go first or second?
- Why did you win/lose your last game?
- What's your strategy?

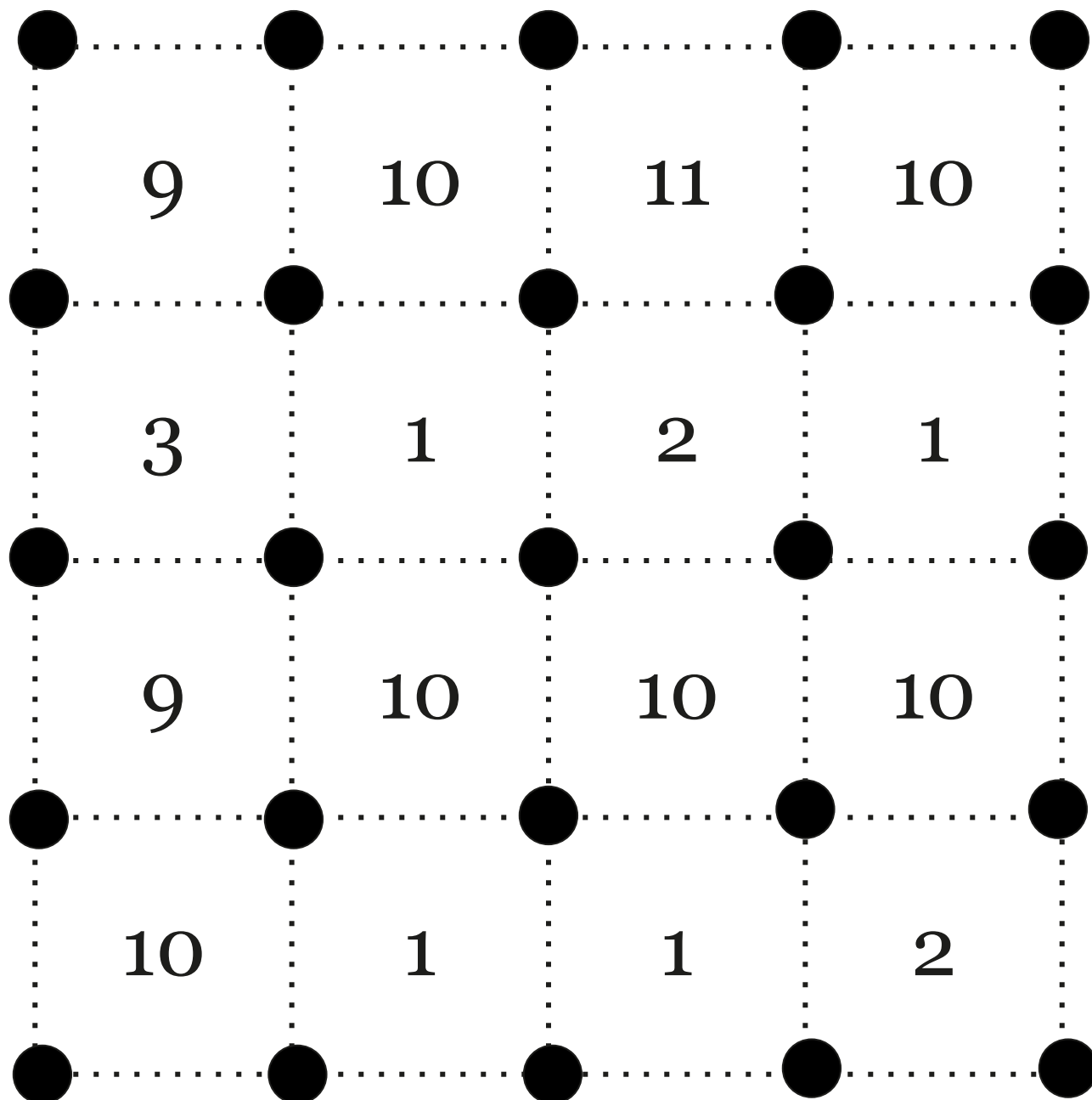
Box the Numbers



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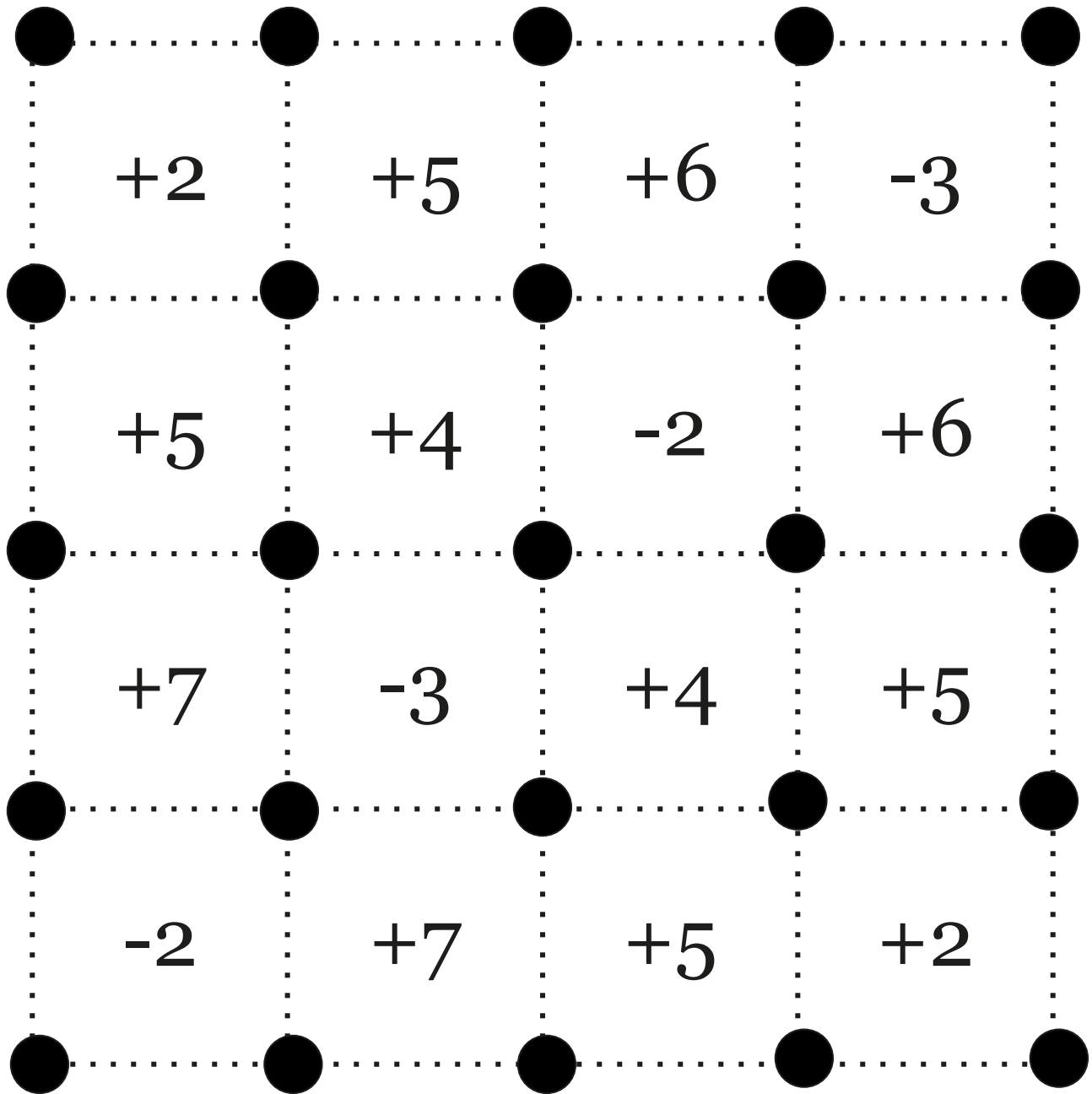
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Closer

Based on observations throughout the game, discuss with students the strategies you observed.

If time remains, pose a conjecture about the game.

Conjecture.

Whoever boxes the most squares wins the game.

Ask students for counterexamples. What is the fewest number of boxes a student could take and still win the game? Could they draw a board where they could take just one box and win? No boxes?

Choice Time

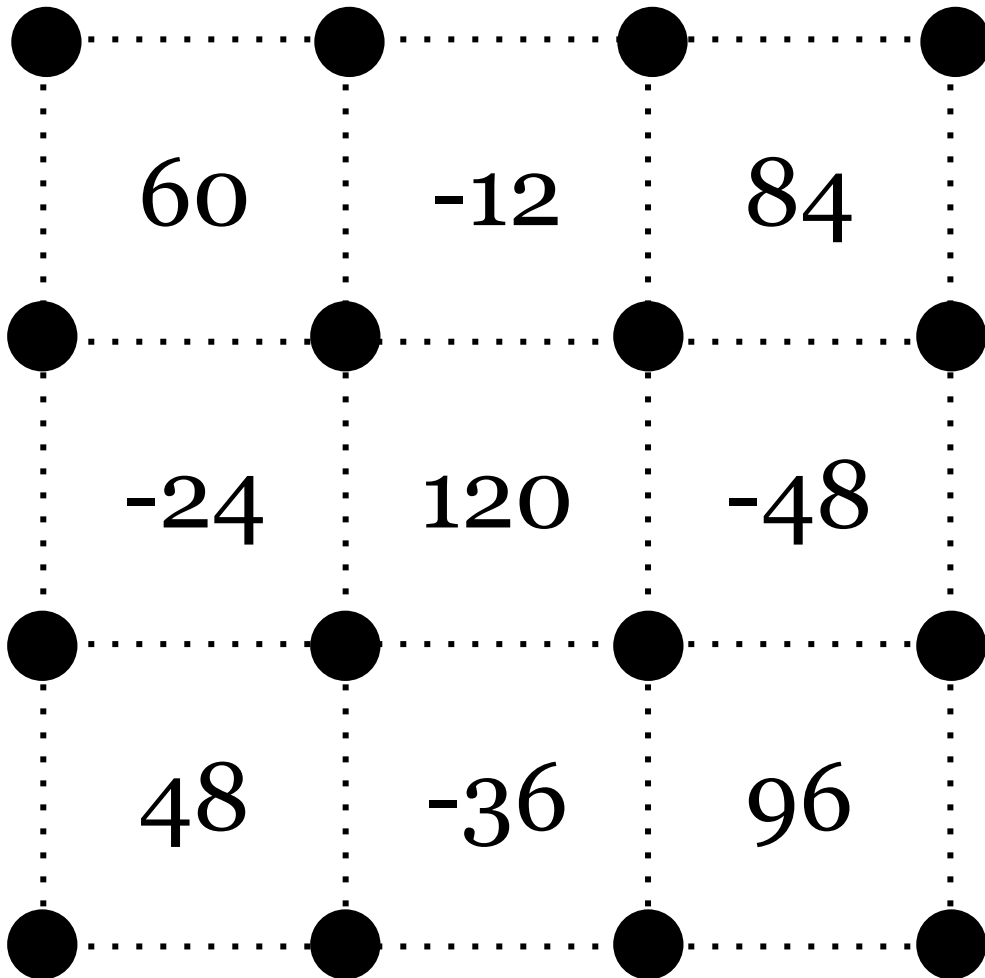
- Box the Numbers
- Odd Pig Out
- Multiplication by Heart
- Challenge Problems

Prompts and Questions

- Is it better to go first or second?
- What's your strategy?
- What is the fewest number of boxes you could take and still win the game?
- Are draws possible?

Day 22

Box the Numbers



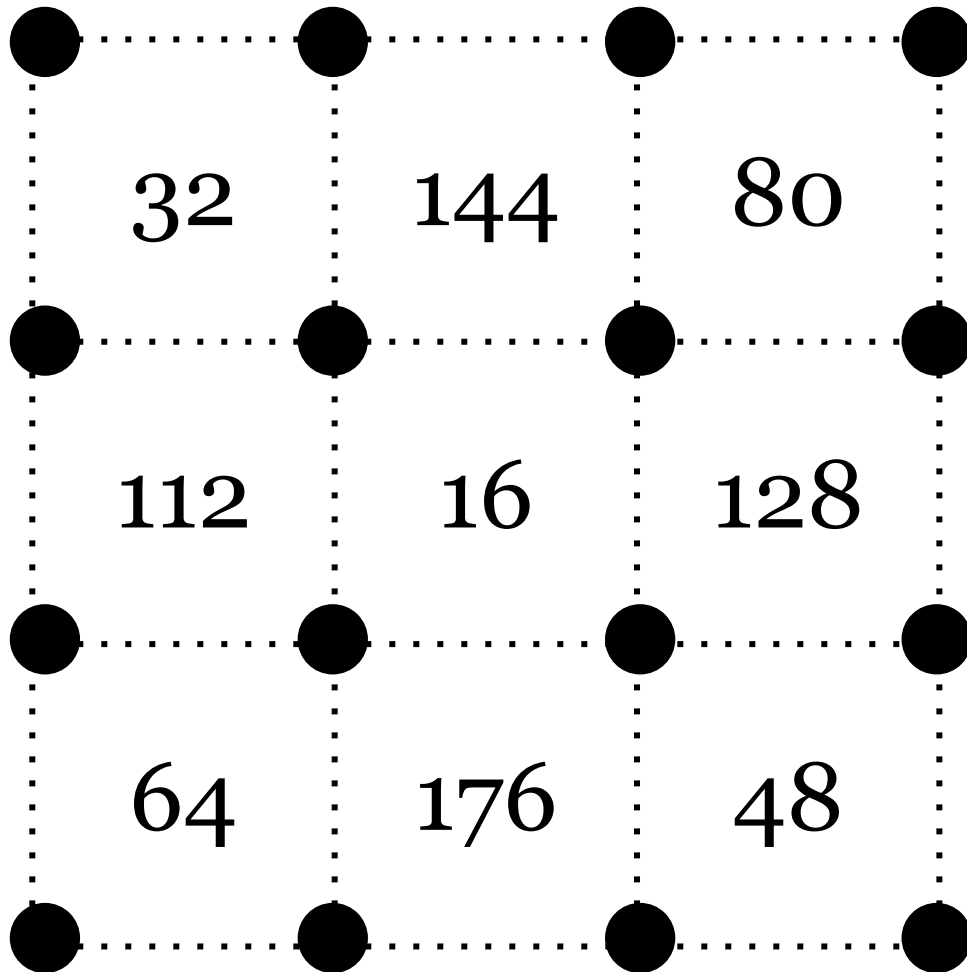
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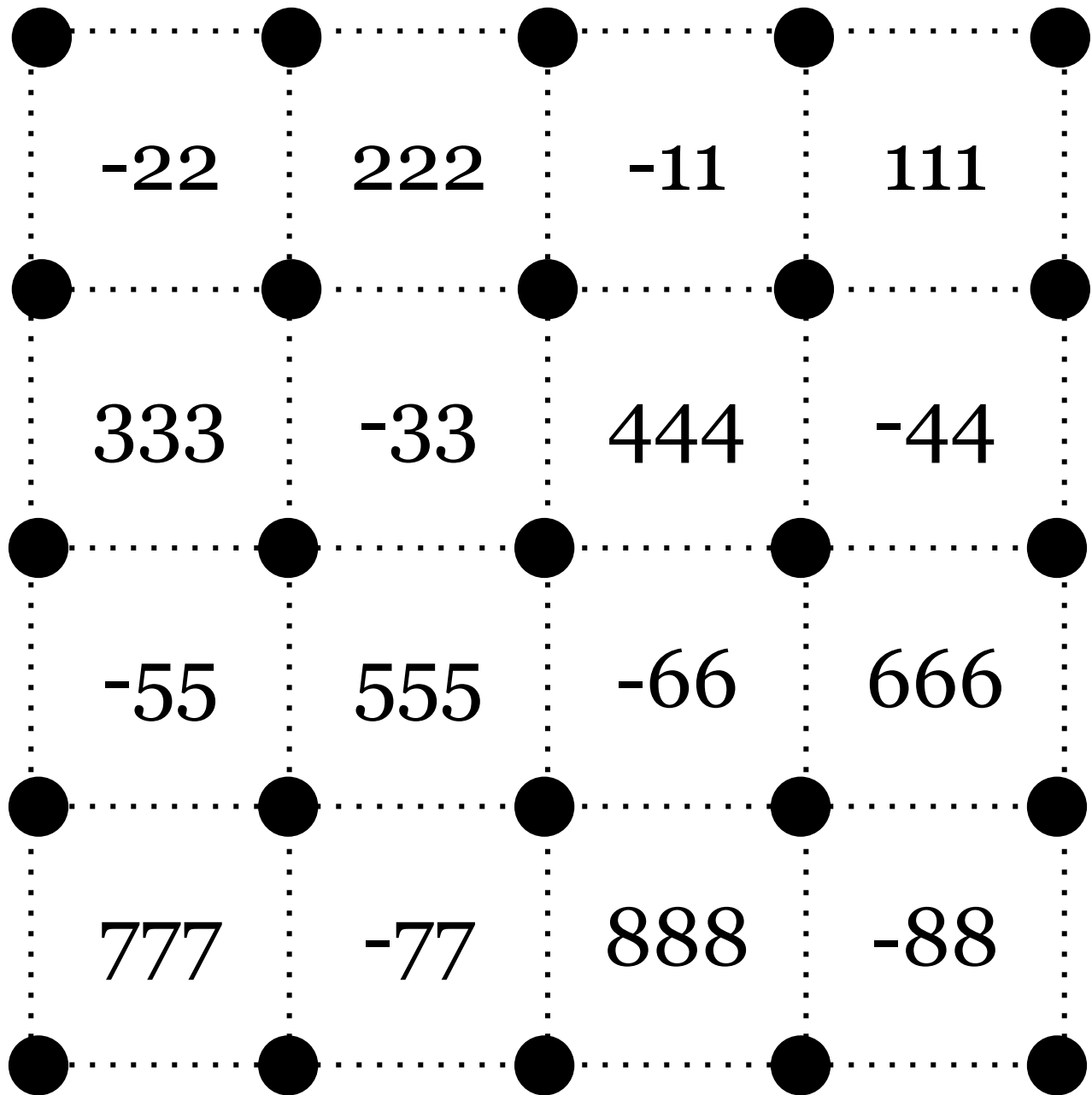
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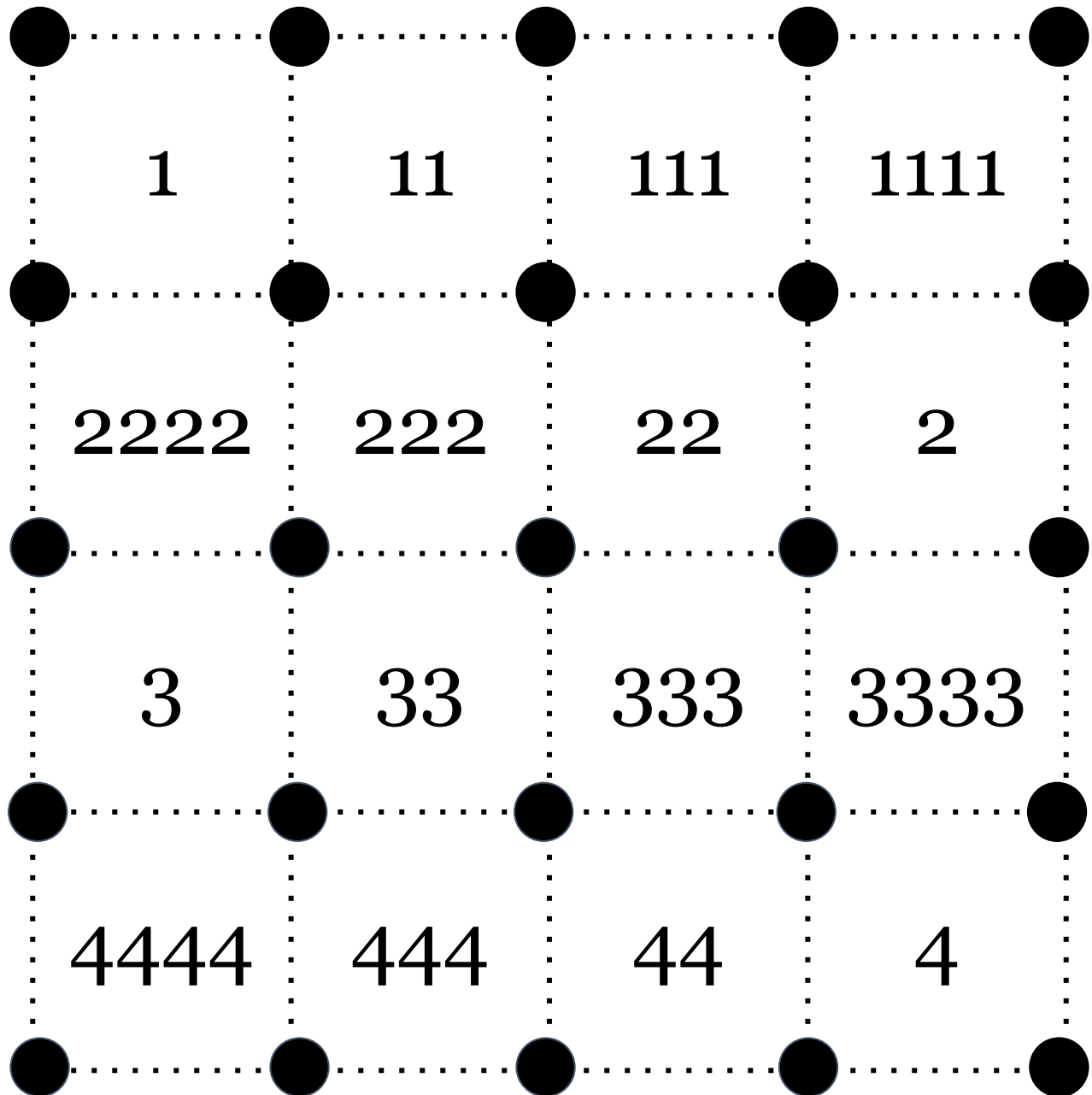
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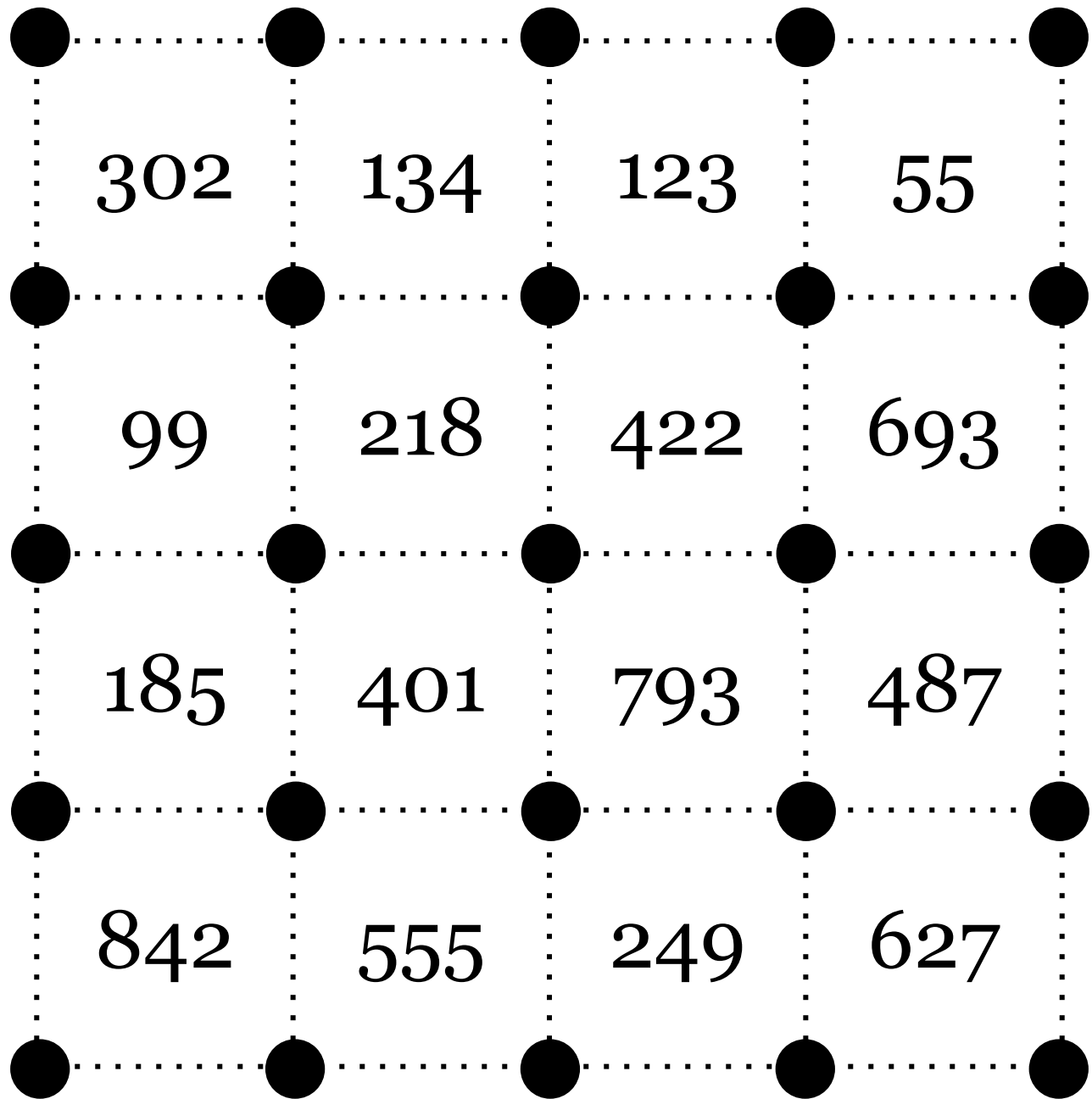
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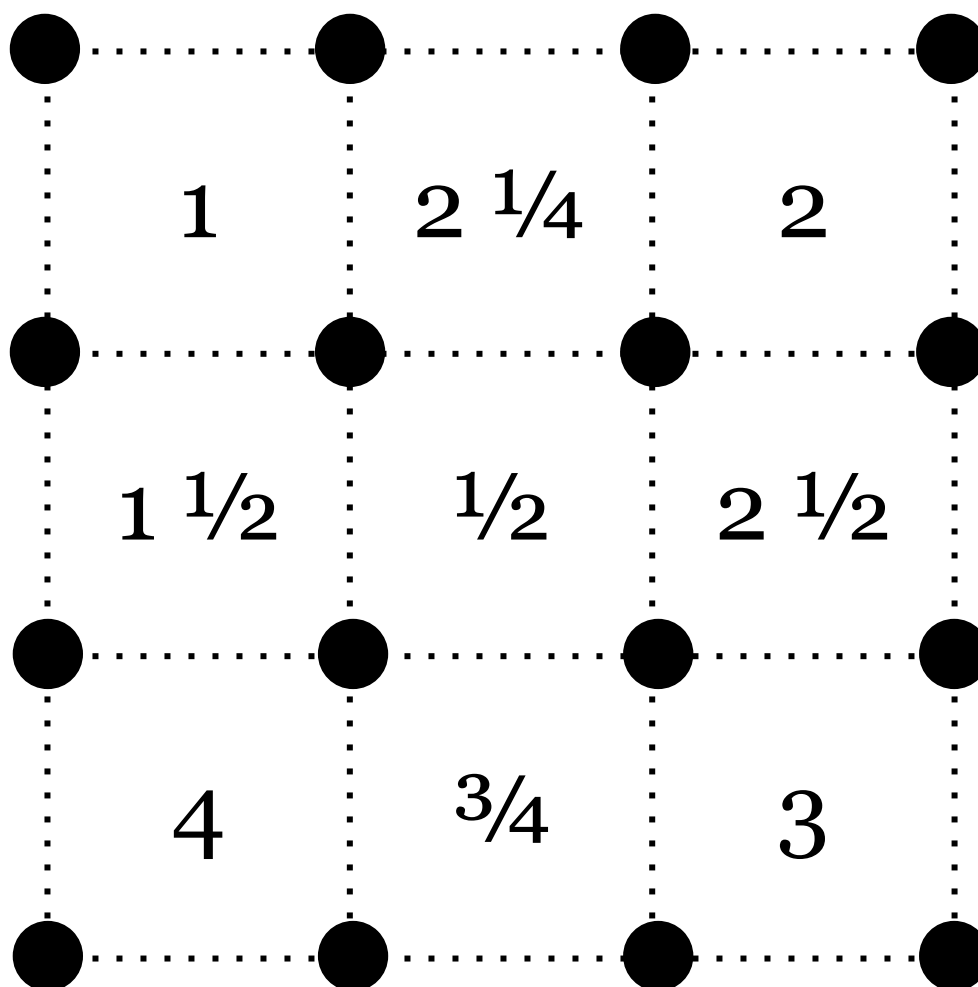
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Day 66

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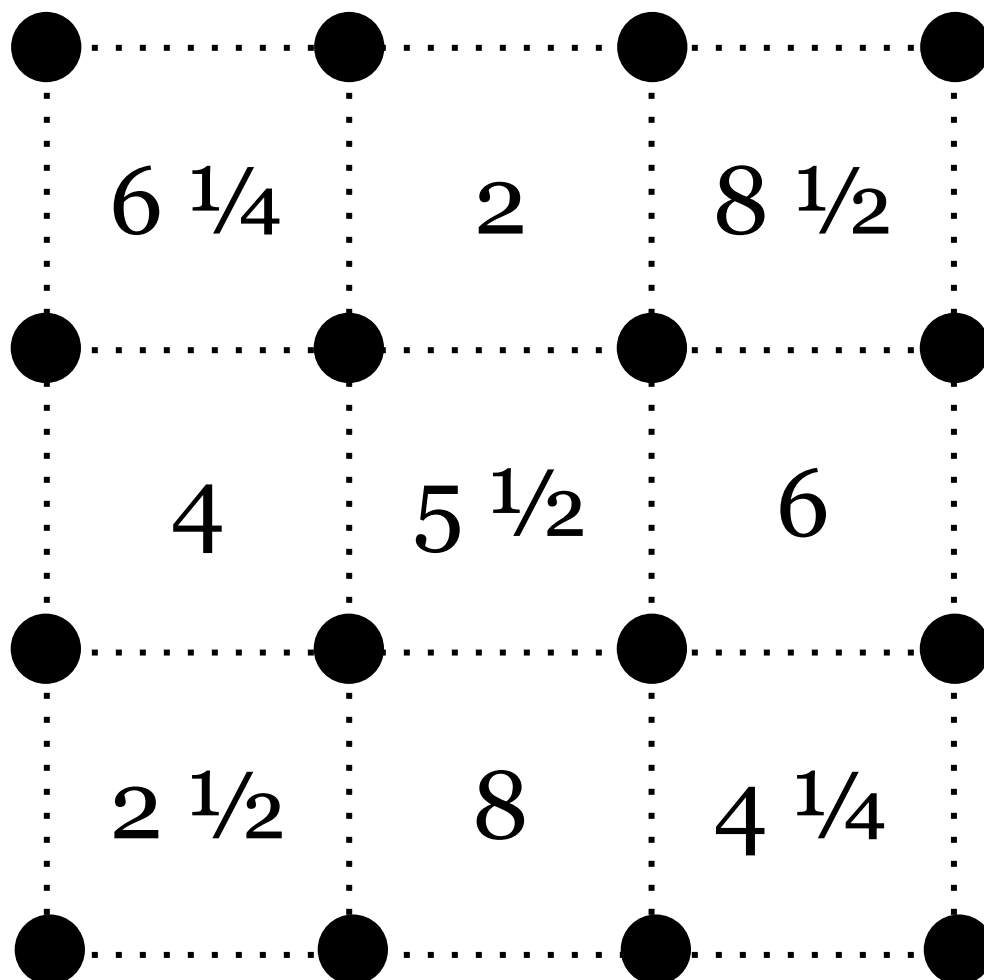
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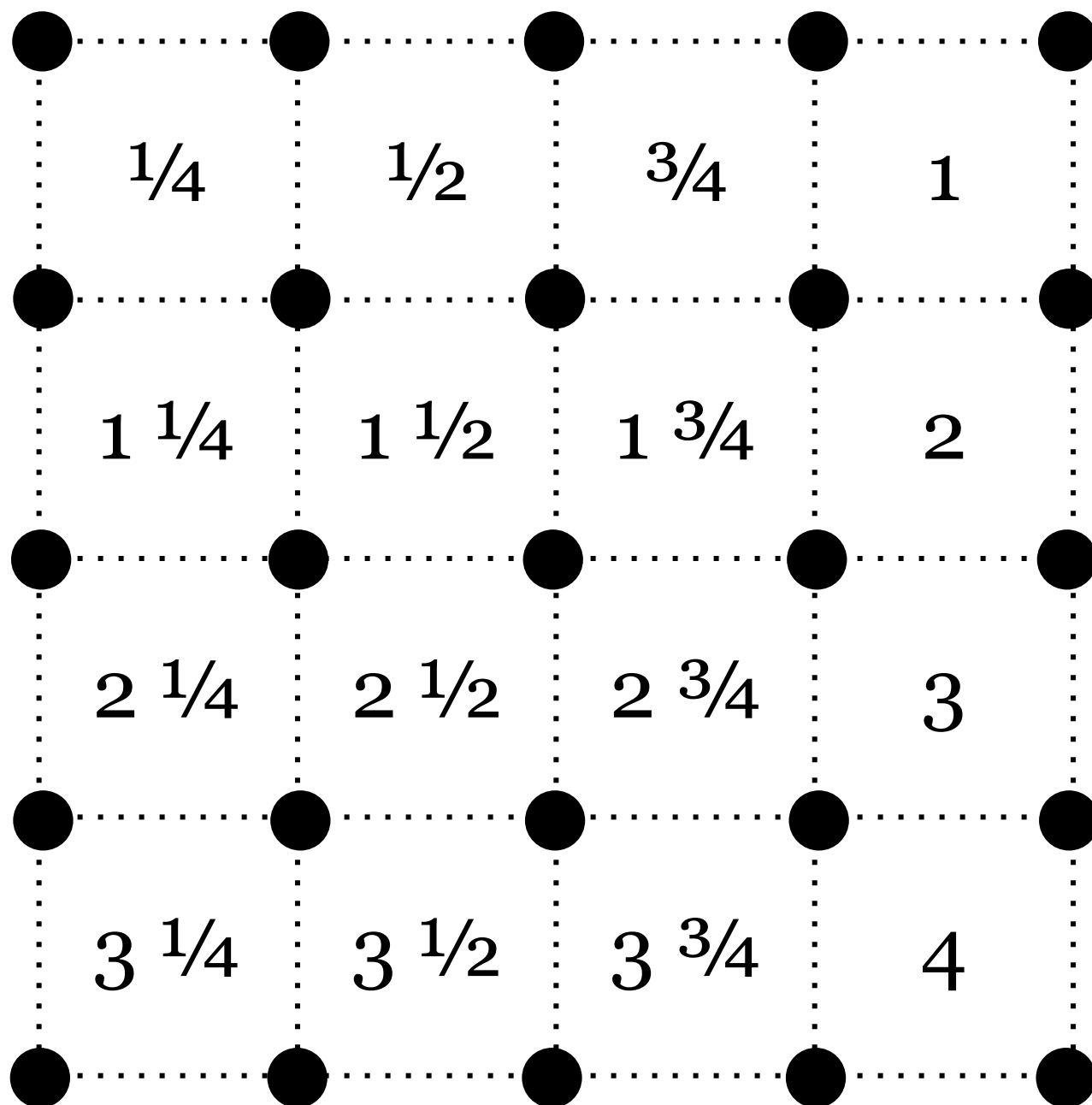
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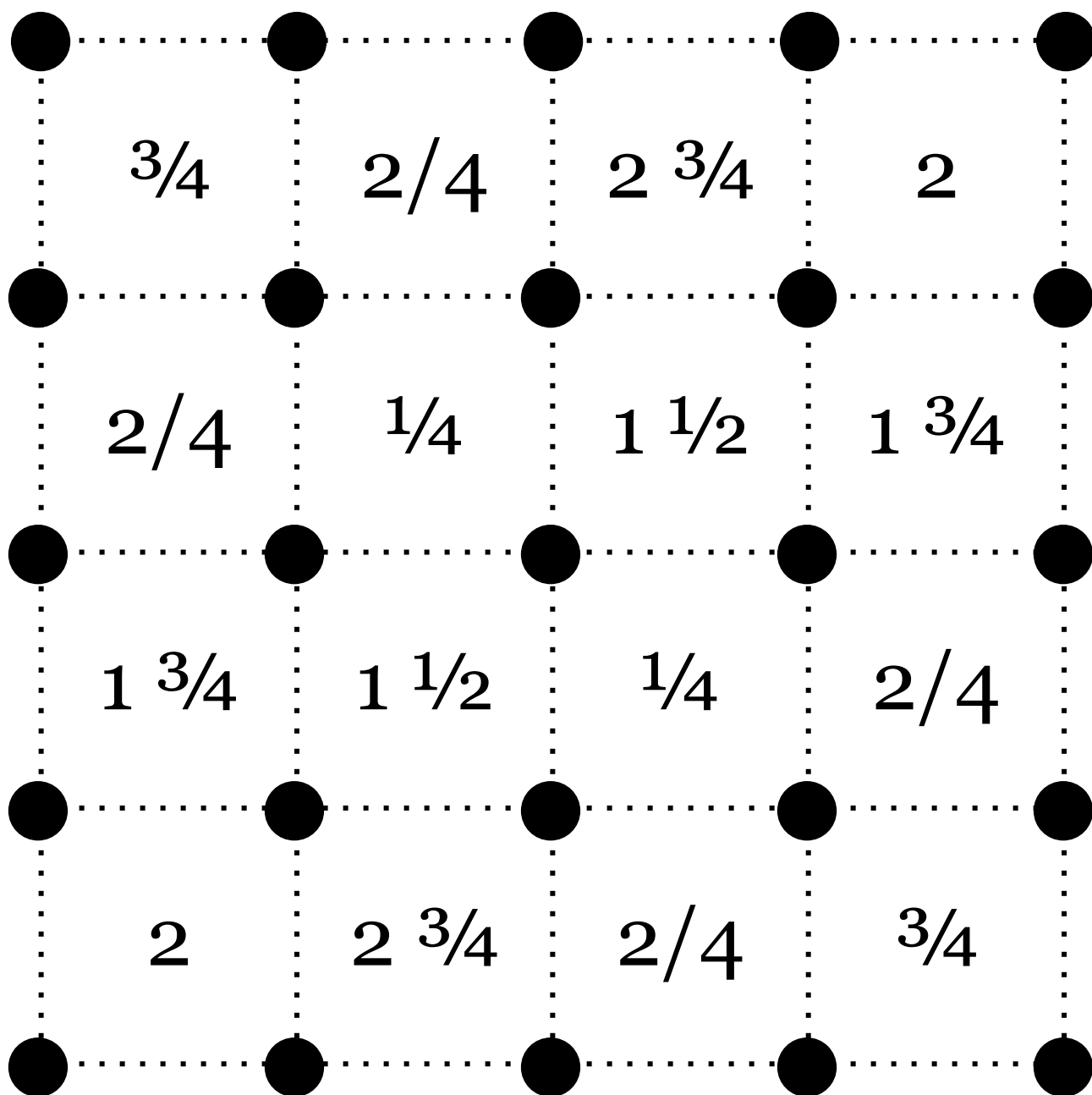
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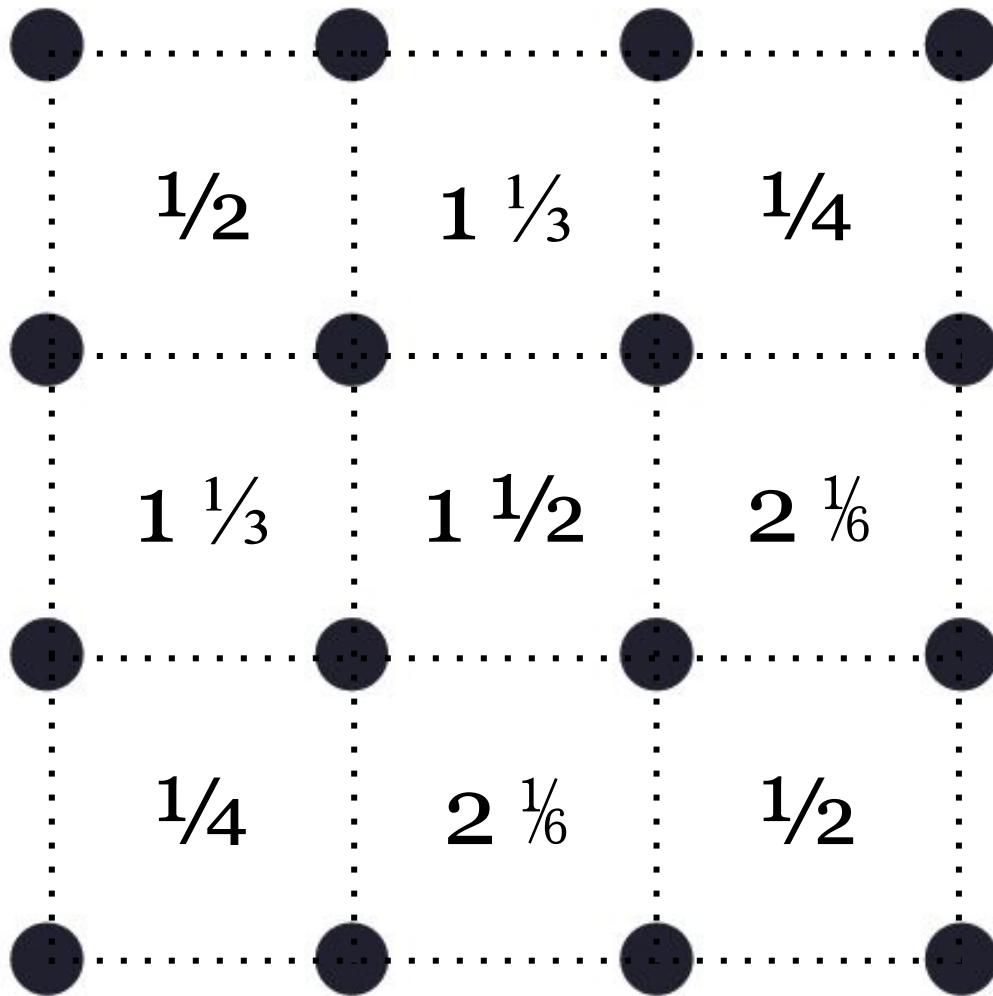
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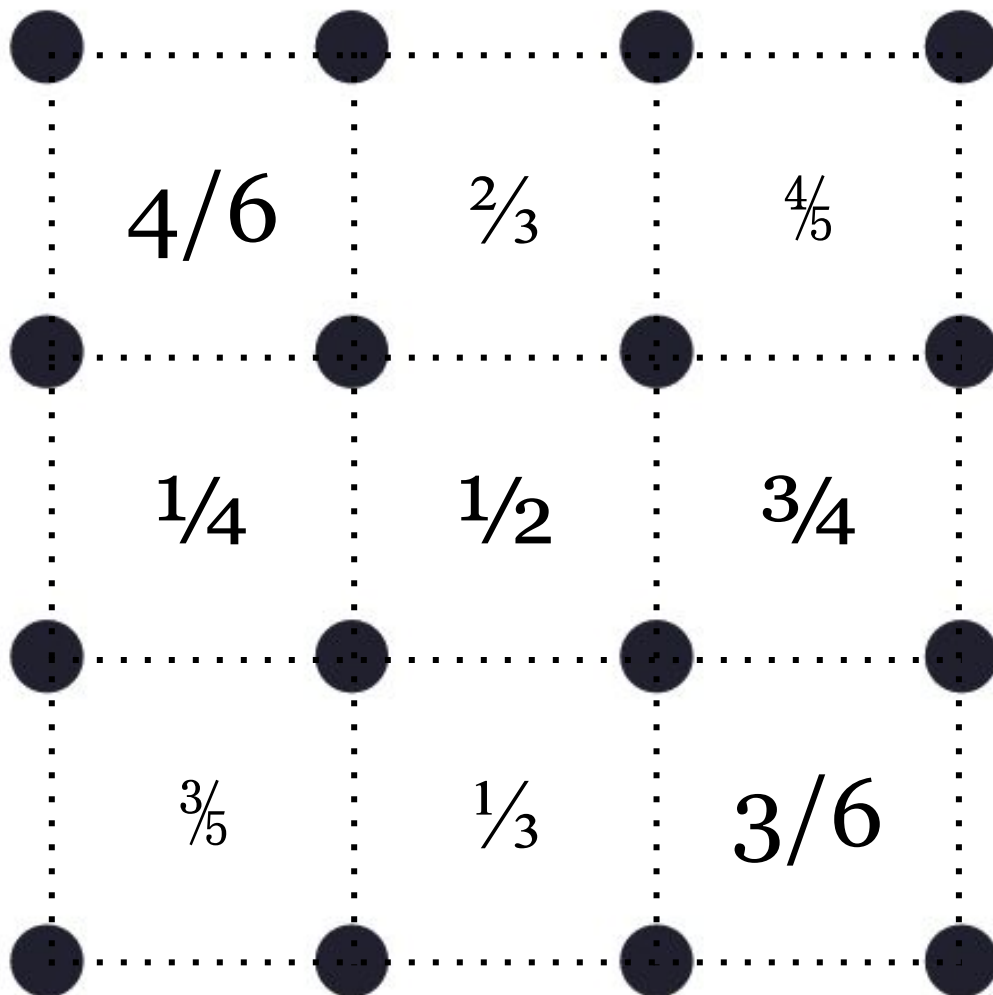
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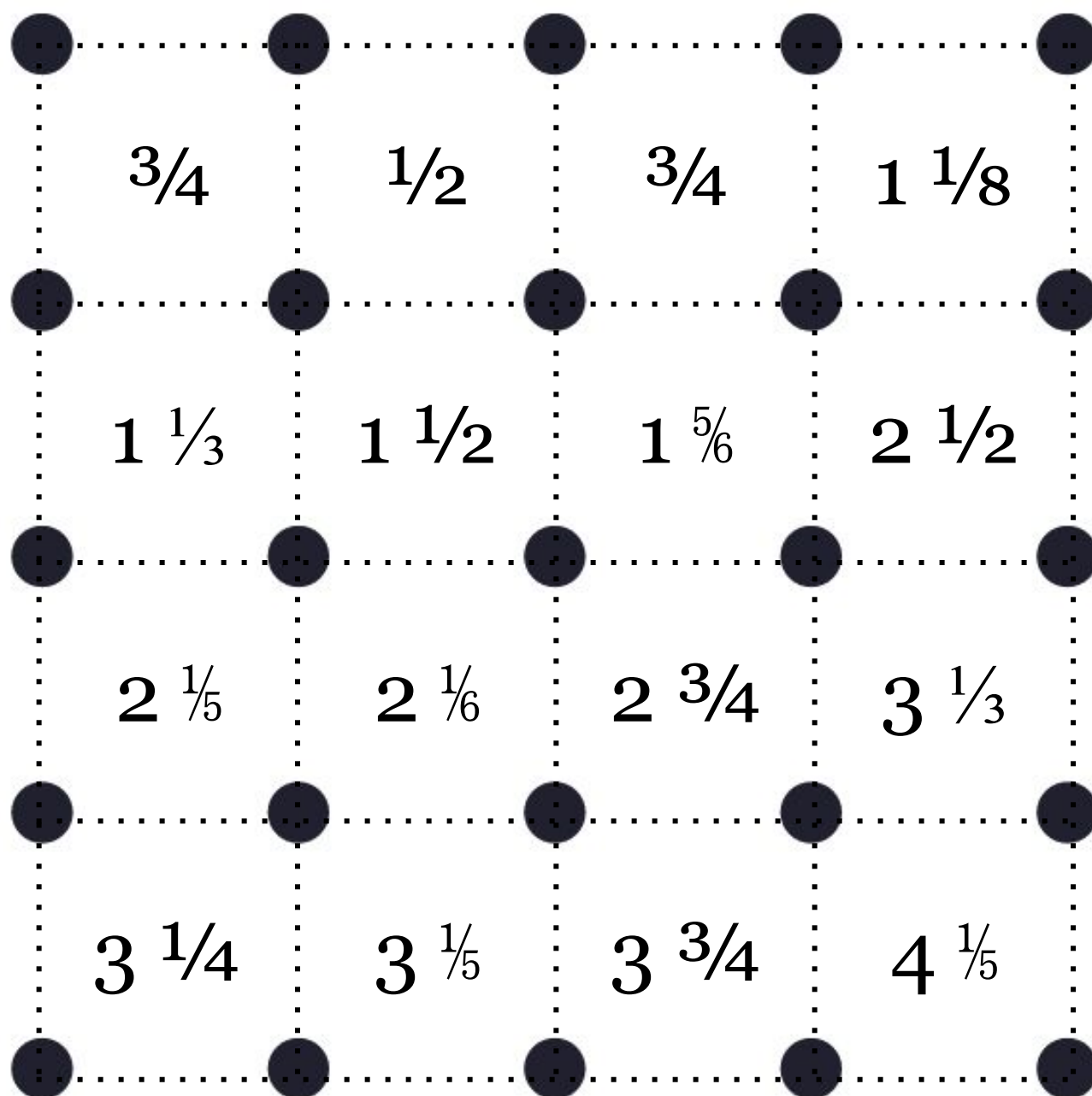
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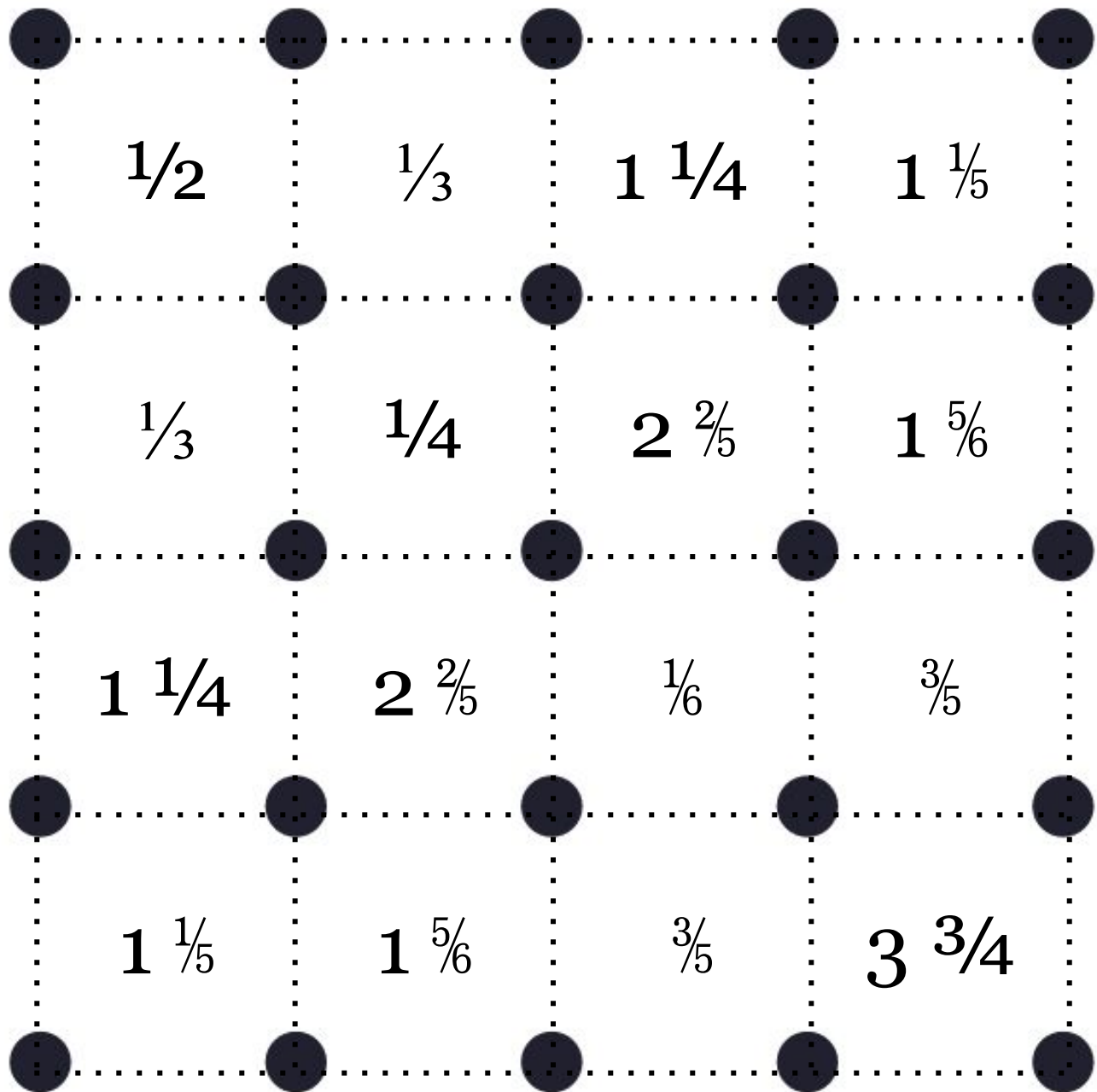
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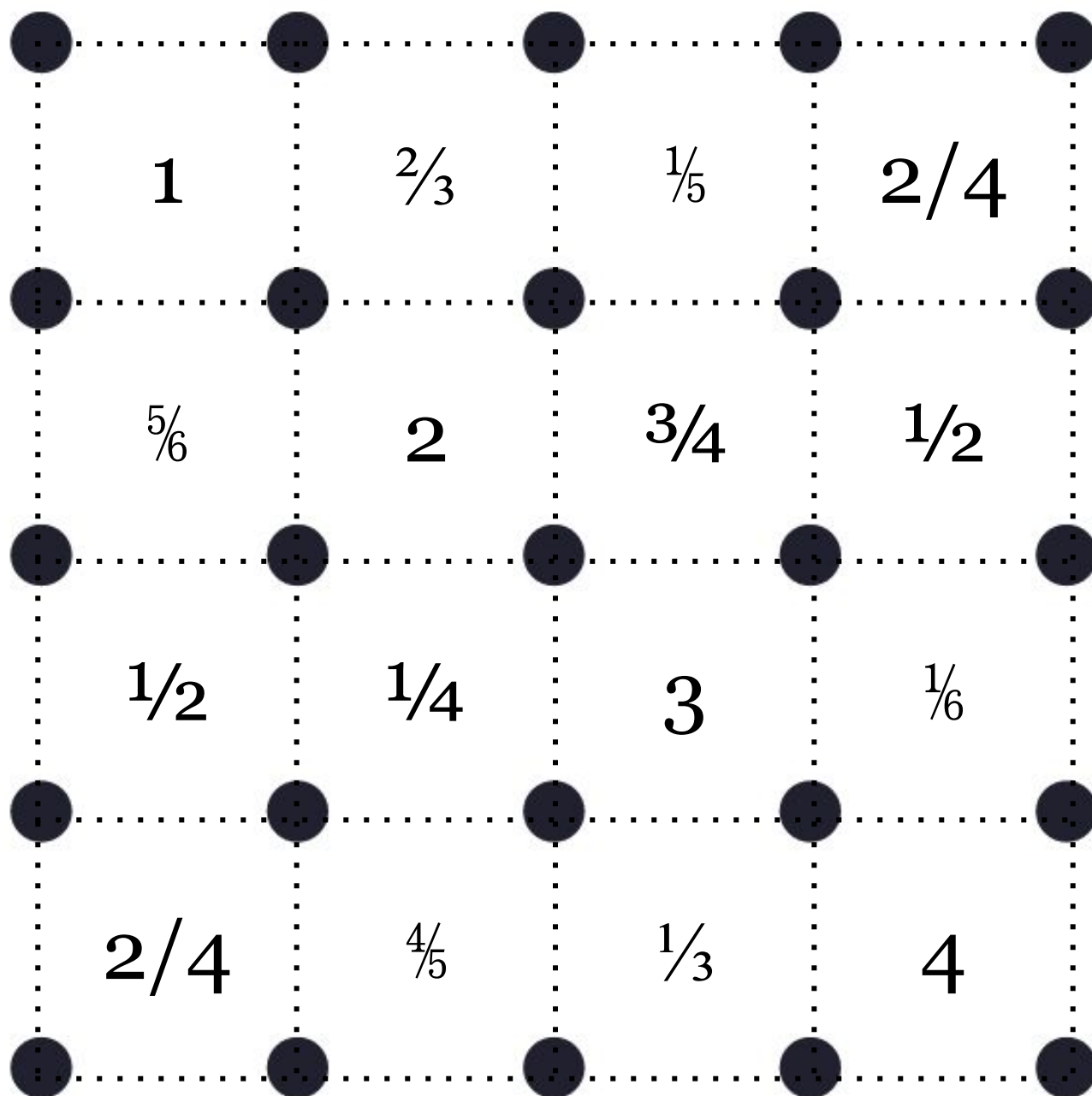
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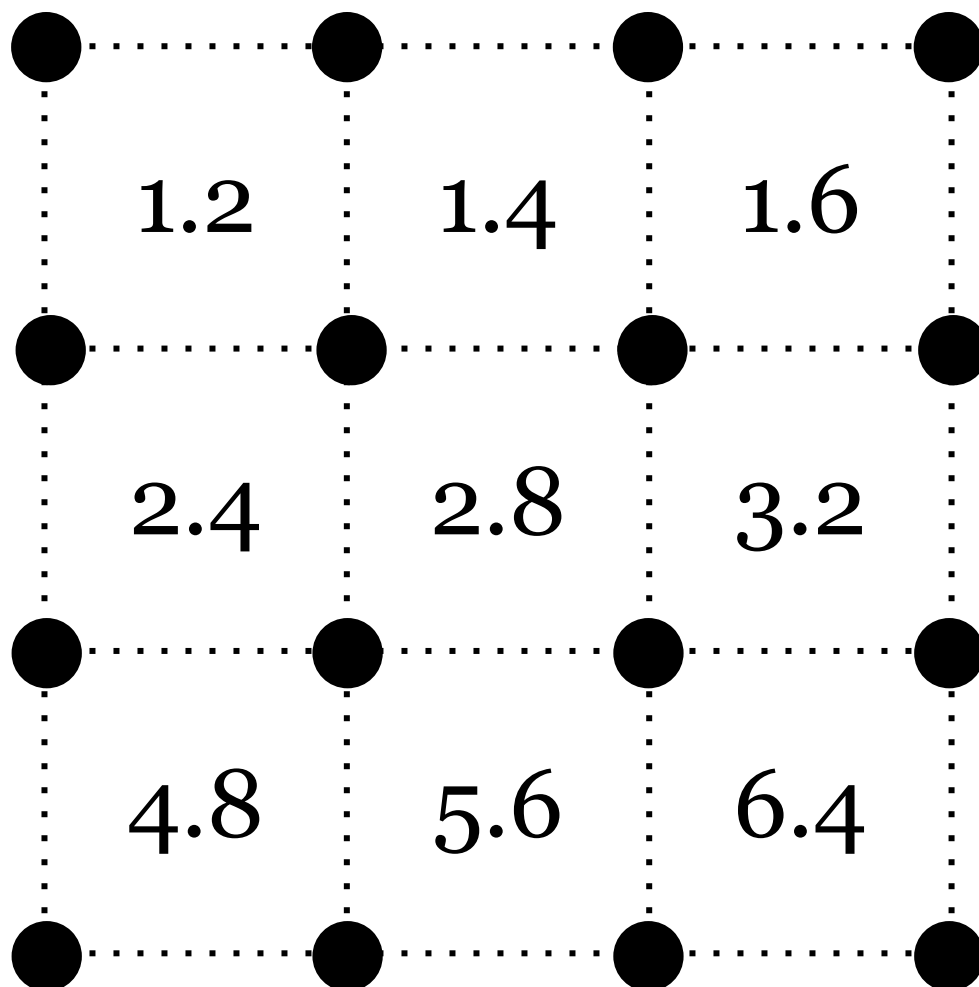


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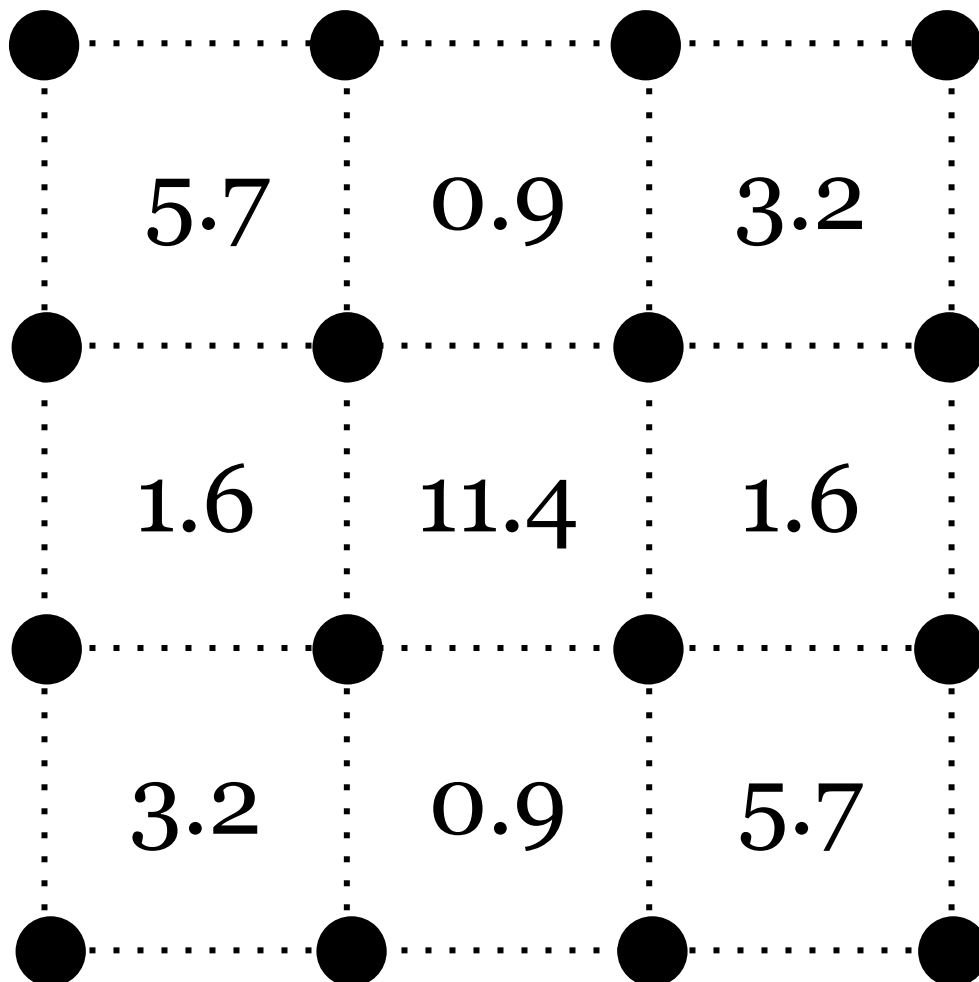


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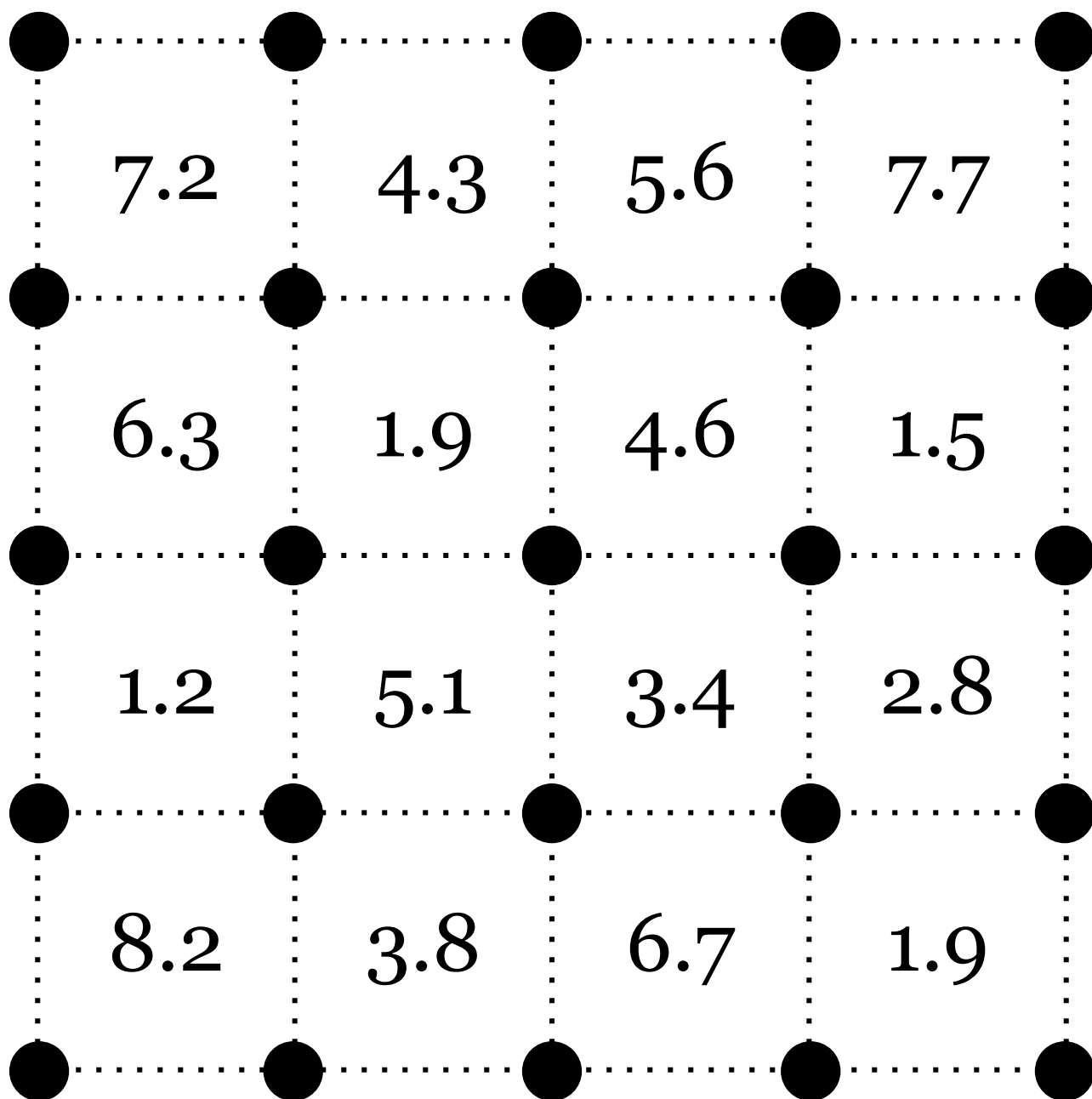


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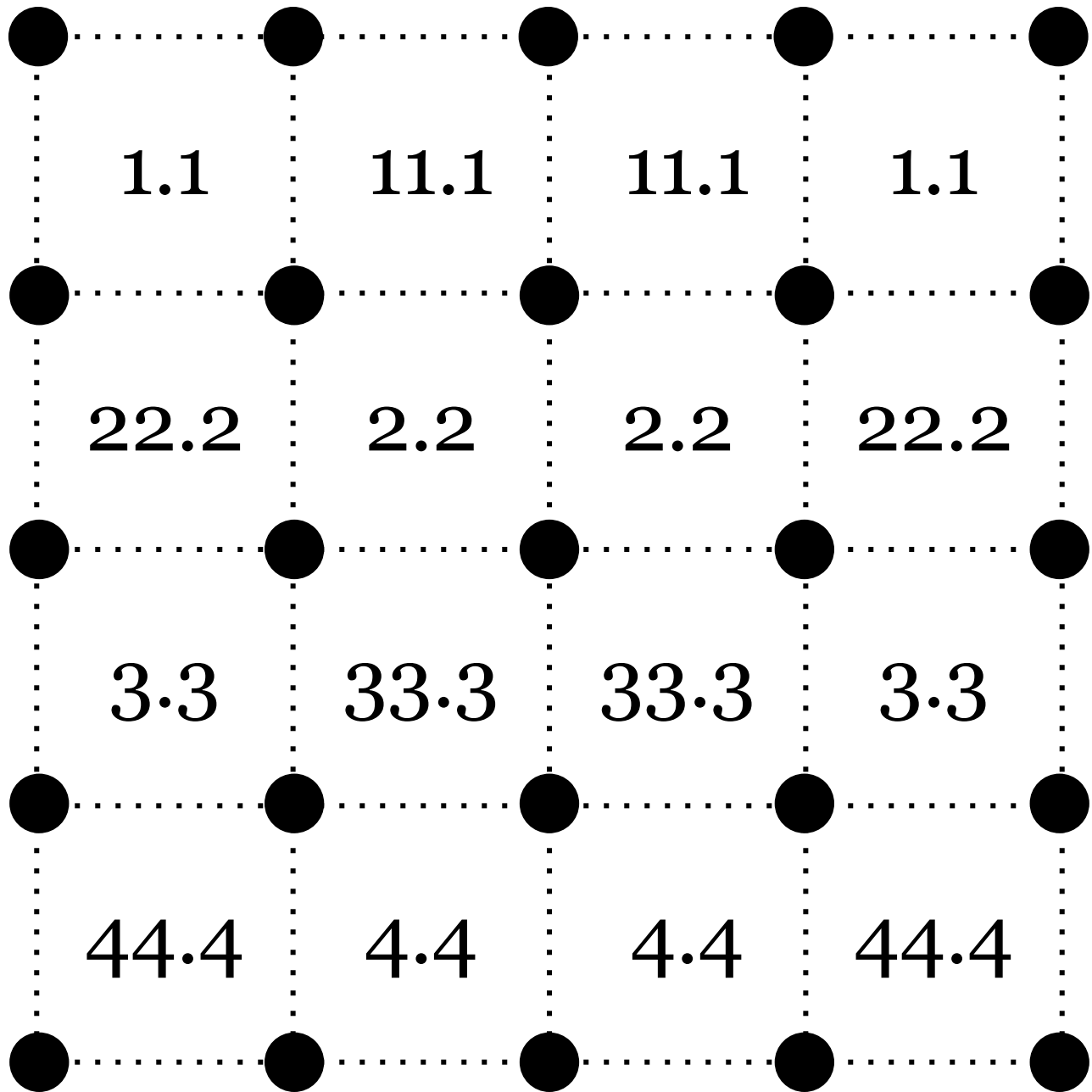


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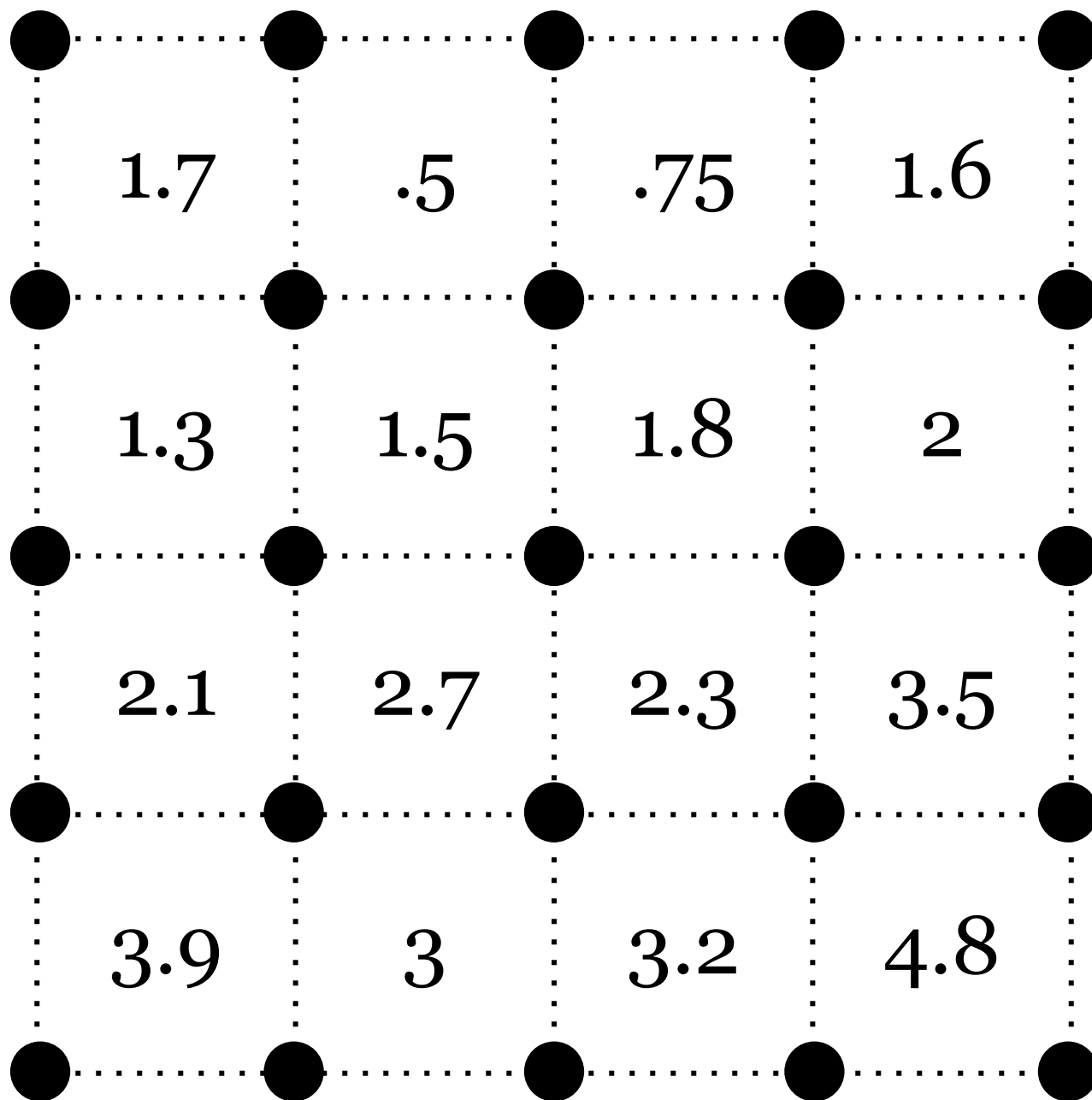


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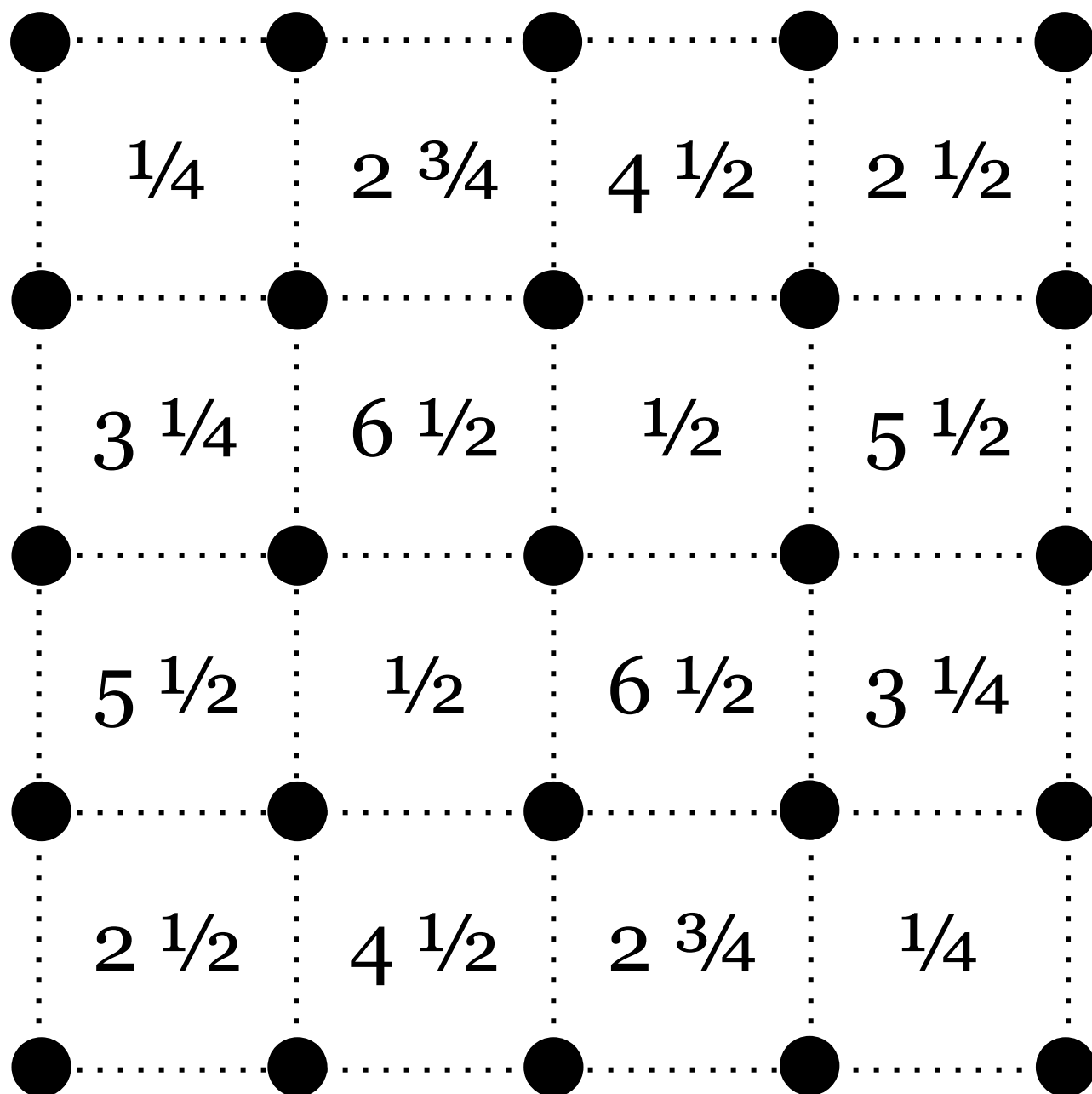
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