



# MaPP Challenge '18

*Mathematical Puzzle Programs*



## MaPP Challenge '18

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## **Part I**

# **Game Overview**



## MaPP Challenge '18 Credits

Thanks for downloading the puzzle booklet for **MaPP Challenge '18** by Mathematical Puzzle Programs. These puzzle materials are provided as-is for use in the classroom (or anywhere else!) to help showcase the fun of mathematical problem-solving.

When the MaPP Challenge '18 is over, we'd love your feedback on how to improve this booklet. You can contact us by email at [info@mappmath.org](mailto:info@mappmath.org). Or better yet, submit an issue or pull request at our GitHub page at <https://github.com/MaPPmath> directly.

More information on Mathematical Puzzle Programs may be found at our website <http://mappmath.org> and on our Twitter @MaPPmath. Happy mathematical puzzling!

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## Special Thanks

- Ronimo Games, for the use of the Awesomenauts brand and artwork in Puzzle 4.

## Attribution

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## **Part II**

### **Bonus Puzzle**

**Gotta snag 'em all in the Expedition Zone!**



MaPP Challenge '18

## Bonus Puzzle

### Catch Mobimon in the Expedition Zone!

Take a trip through the **Expedition Zone** to catch as many Mobimon as you can! There's a catch, though: your path through the Expedition Zone has to follow certain **path pieces**. Here are the rules:

1. Two path pieces are adjacent if at least one square in one piece is orthogonally (**not diagonally**) adjacent to at least one square in the other piece.
2. You must have a path piece adjacent to the **starting line**.
3. You must have a path piece adjacent to the **finish line**.
4. You may not have any breaks in your path. It must be an **unbroken path** of adjacent pieces from start to finish.
5. Your path may cross itself.

You may notice several Mobimon inhabiting the Expedition Zone! These Mobimon are represented by **numbers**, and each number is its **strength**. To catch a Mobimon, you must

1. make sure your path goes over that Mobimon, and
2. a piece on that Mobimon must have **more squares than that Mobimon's strength**.

Your score is the **sum of the strengths of the Mobimon you catch**. The teams with the two highest scores get **Victory Points**! Good luck!

## The Expedition Zone

|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|--------|---|---|---|---|--|---|---|---|--|---|---|---|---|---|
| Start  |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  | 1 |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   | 1 | 1 |   |
| 1      | 3 |   |   |   |  |   |   |   |  |   |   |   | 1 |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   | 3 |   |   |  |   |   | 1 |  |   | 2 |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        | 4 |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   | 3 |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  | 2 | 2 |   |  |   | 3 | 1 |   |   |
|        |   | 4 |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   | 4 |
|        |   | 4 | 4 |   |  |   |   |   |  |   |   |   |   | 2 |
|        |   |   |   | 1 |  |   |   |   |  | 2 |   |   |   | 2 |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   |   |
|        |   |   |   |   |  |   | 1 |   |  |   |   |   |   |   |
|        |   |   |   | 3 |  | 3 |   |   |  |   | 2 |   |   |   |
|        |   |   |   |   |  |   |   |   |  |   |   |   |   | 1 |
|        |   |   | 1 |   |  |   |   |   |  | 2 |   |   | 1 | 1 |
| Finish |   |   |   |   |  |   |   |   |  |   |   |   |   |   |



Path Pieces

