

MEEPLE TOWN

FESTIVAL GUIDE

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Materials and Setup

Per table (assuming 5 students per table), you will need:

Per Table	Material Preparation	
5 Meeples		
125 1 x 2 tiles		
3 copies of Instructions	1-page sheet	p. 6
5 copies of Meeple Town tasks	2-page sheet <i>can be printed double-sided</i>	p. 7-9
1 copy of Table Sign	1-page sheet <i>print on cardstock for sturdiness</i>	p. 10

Per Table	Purchasing Materials		
Meeples	pack of 100 \$14.99 each		
1 x 2 tiles	pack of 360 \$17.99 each		
8 plastic sheet protectors	pack of 100 for \$7.67	pack of 500 for \$26.99	These are recommended in order to protect the documents that students will be handling.



Objective

Find all of the places on the grid (town) where a Meeple can live so that the rest of the grid can be covered by 1×2 tiles (houses).

Rules:

1. Place one Meeple in a starting place on the grid.
2. Cover the rest of the grid with 1×2 tiles.
3. If you can tile the rest of the grid, the puzzle is possible. If you can't, the puzzle is impossible and the Meeple must be moved to the next starting place to try again.

Materials

Each Meeple Town table should be prepped for 5 stations.

Each station needs:

1. One Meeple.
2. 25 - 1×2 tiles.
3. Meeple Town instructions.
4. Meeple Town tasks.

How to Play

Introduce the activity without overexplaining it and without telling what strategies students might want to use. As much as possible, avoid giving away answers. Students should be encouraged to explore, experiment, and learn from their mistakes.

1. Make clear that each town will have only one Meeple and that the rest of the town will be covered by 1×2 houses.
2. Have the student place a Meeple on the square which has an outline of a Meeple labeled with a 1.
3. Have the student try to fill the rest of the squares with 1×2 tiles. The tiles cannot extend outside the town.
4. Encourage the student to try the next puzzles using one Meeple per town.

Standards

1. Make sense of problems and persevere in solving them. CCSS.MP1
2. Construct viable arguments and critique the reasoning of others. CCSS.MP3
3. Model with mathematics. CCSS.MP4
4. Attend to precision. CCSS.MP6



Asking Good Questions

1. Ask questions about confidence.
 - a. When a student asks you “Is this right?”, instead of saying “yes” or “no” right away, ask them how confident they are in their answer. Here are some examples:
 - i. “Maybe. What do you think? How confident are you?”
 - ii. “On a scale of 1-5, how confident are you in your answer?”
 - b. If a student is not confident in their answer, follow up by asking “What would help you feel more confident in your answer?” or “Why do you not feel confident?” This helps you determine how best to help the student through their explorations.
2. Ask students about choices.
 - a. When a student is stuck or shows you a wrong answer, instead of jumping in and showing the student the correct answer, start by asking about the choices that the student made along the way. Here are some suggested steps to follow:
 - i. Start from the beginning.
 - ii. Ask students to show you what they’ve tried so far.
 - iii. When the student gets to a point where they have different choices, ask the student “What other choices can you make here?”
 - iv. Have the student make a different choice and try to solve the puzzle. This helps the student see that they have the power to make different choices during an activity, and they’ll start to do this on their own in the future.
 - v. If you’re familiar with the puzzle or a particular solution, stop the student only when a different choice will help them get to the solution. This will help them feel successful faster without you giving away too much of the answer.
3. Ask students about strategies.
 - a. If a student is getting into the activity and has been doing it for a while, ask the student if there are any strategies they’ve come up with to help them solve the puzzle or win the game.
 - b. Follow up by asking if they think their strategies will work for all puzzles and/or larger puzzles, more complex puzzles, etc. Have the student explore more complex puzzles to test out their strategies.
 - c. This is a great way to encourage a student to dive deeper into an activity and to start looking for patterns, structure, and proofs.
4. Activity specific questions.
 - a. Have them consider patterns to predict other squares where a Meeple could or couldn’t be placed, e.g., If you know #3 is an impossible square, do you think the square here (directly above the #1 Meeple) is possible or impossible?

Answers

Impossible puzzles are:

3 x 3 town: #3

5 x 5 town: #6, #8

6 x 6 town: #11, #13

7 x 7 town: #16, #17

Meeple Town Instructions

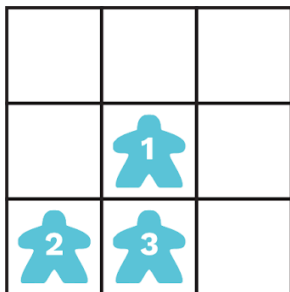
Rules:

- This is Meeple.

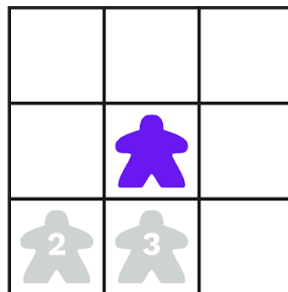


- Meeple wants to live all on their own. Everyone else in town wants to live in 1x2 houses.
- Each number is a different place that Meeple is thinking about living.
- Can you find all of the places where Meeple can live so that the rest of the town can be covered by 1x2 houses? Not all of the places will work.

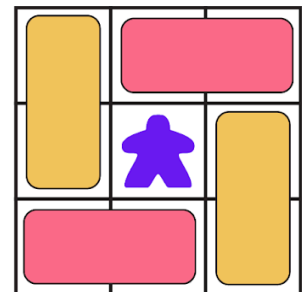
Example for Puzzle 1



Each number is a different puzzle.



Place a Meeple on the puzzle you are on.

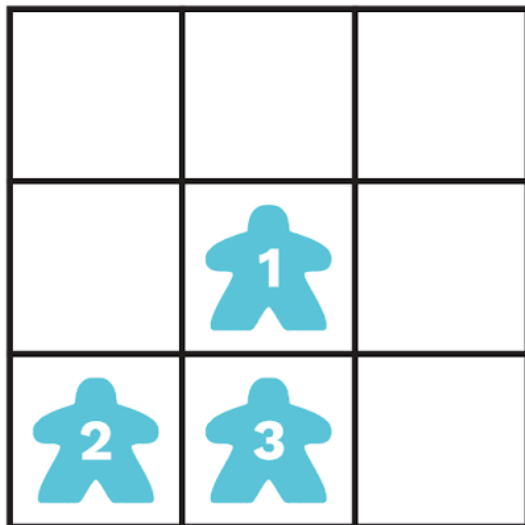


Try to cover the rest of the town with 1x2 houses. Sometimes this is impossible!

Meeple Town

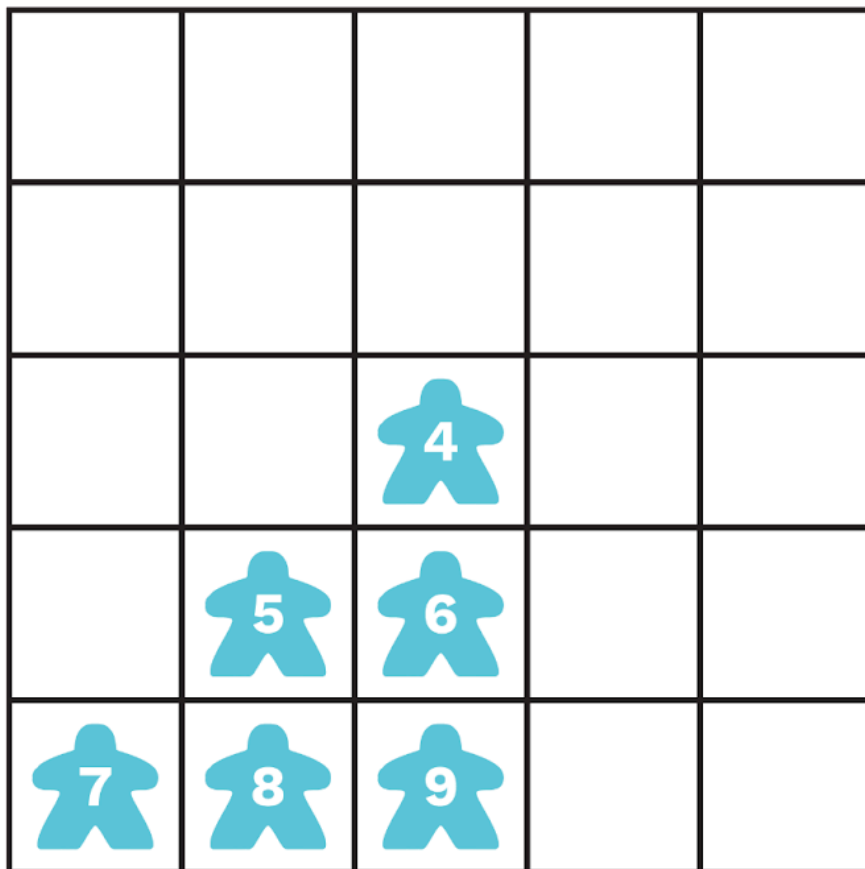
Puzzles 1 - 3

One of these puzzles is **impossible**. Which one?



Puzzles 4 - 9

Two of these puzzles are **impossible**. Which ones?

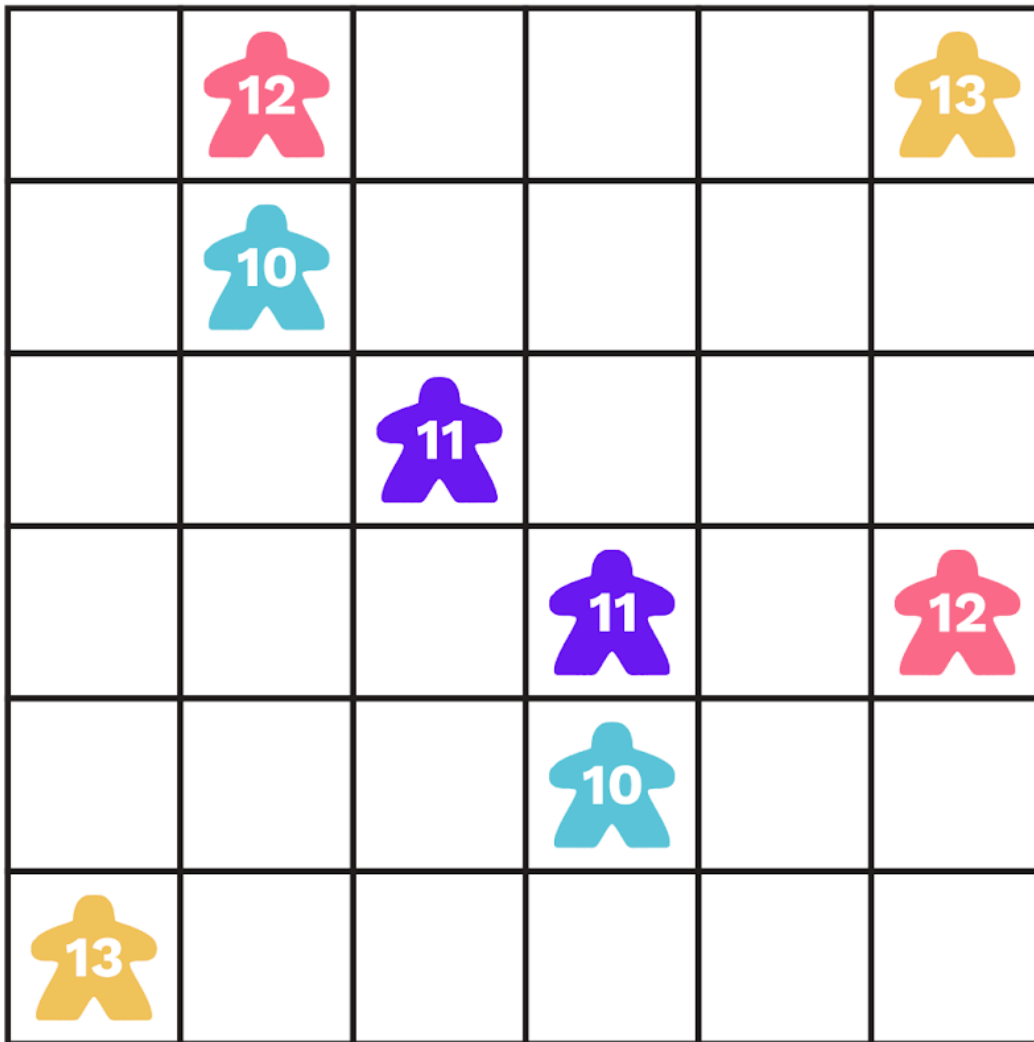


Meeple Town

For each of these puzzles, place **two Meeples** instead of one, and then try to cover the rest of the grid.

Puzzles 10 - 13

At least one of these puzzles is **impossible**. Which one(s)?















Meeple Town

For each of these puzzles, place **three Meeples** instead of two, and then try to cover the rest of the grid.

Puzzles 14 - 17

At least one of these puzzles is **impossible**. Which one(s)?



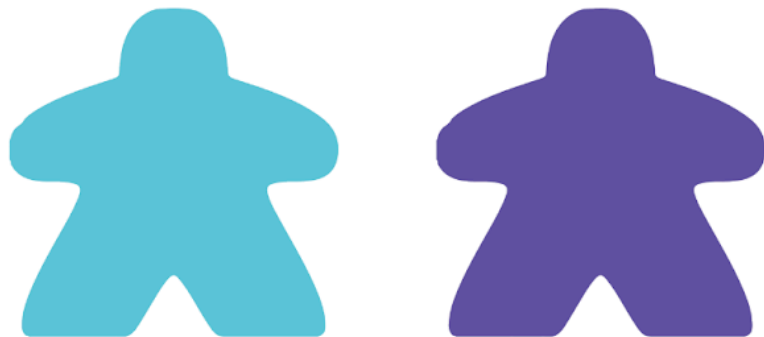
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jrmf.org/puzzle/meeple-town



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