## Unit 4 Lesson 8: How Much in Each Group? (Part 1)

### 1 Inventing a Situation (Warm up)

#### Student Task Statement

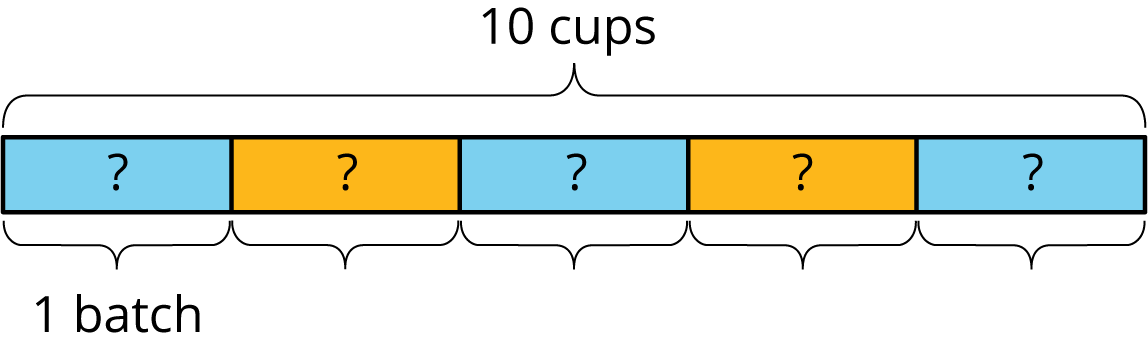
1. Think of a situation with a question that can be represented by the equation  Describe the situation and the question.
2. Trade descriptions with your partner, and answer your partner’s question.

### 2 How Much in One Batch?

#### Student Task Statement

To make 5 batches of cookies, 10 cups of flour are required. Consider the question: How many cups of flour does each batch require?

We can write equations and draw a diagram to represent this situation.

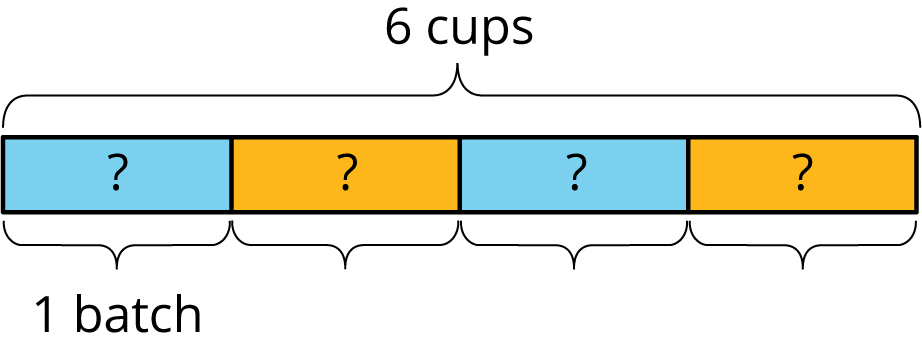


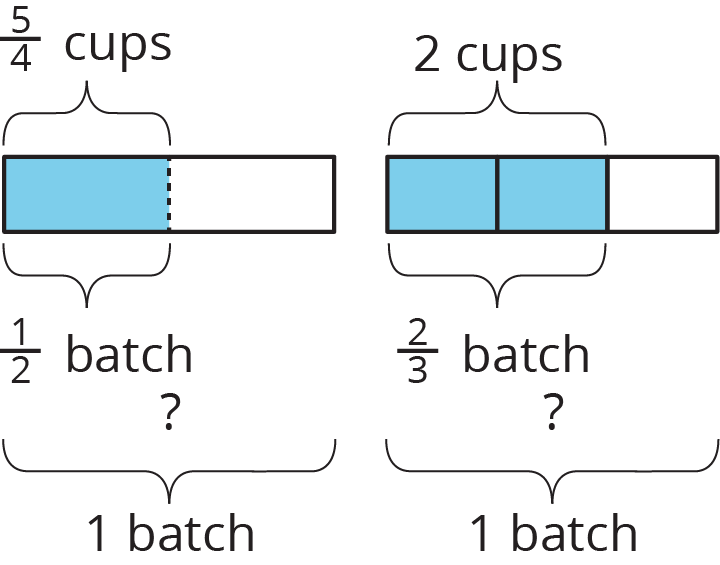
This helps us see that each batch requires 2 cups of flour.

For each question, write a multiplication equation and a division equation, draw a diagram, and find the answer.

1. To make 4 batches of cupcakes, it takes 6 cups of flour. How many cups of flour are needed for 1 batch?
2. To make batch of rolls, it takes cups of flour. How many cups of flour are needed for 1 batch?
3. Two cups of flour make batch of bread. How many cups of flour make 1 batch?

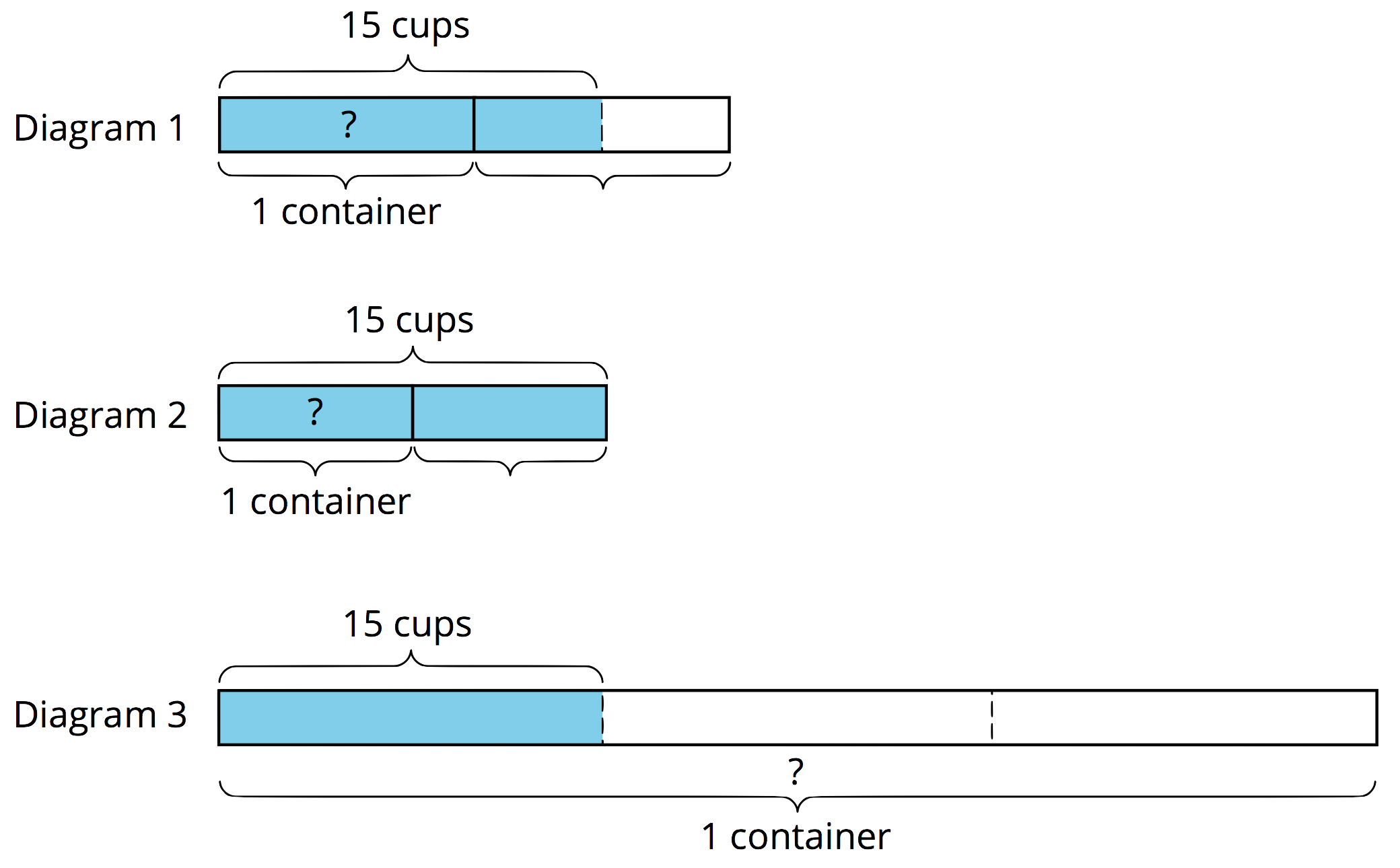
#### Activity Synthesis

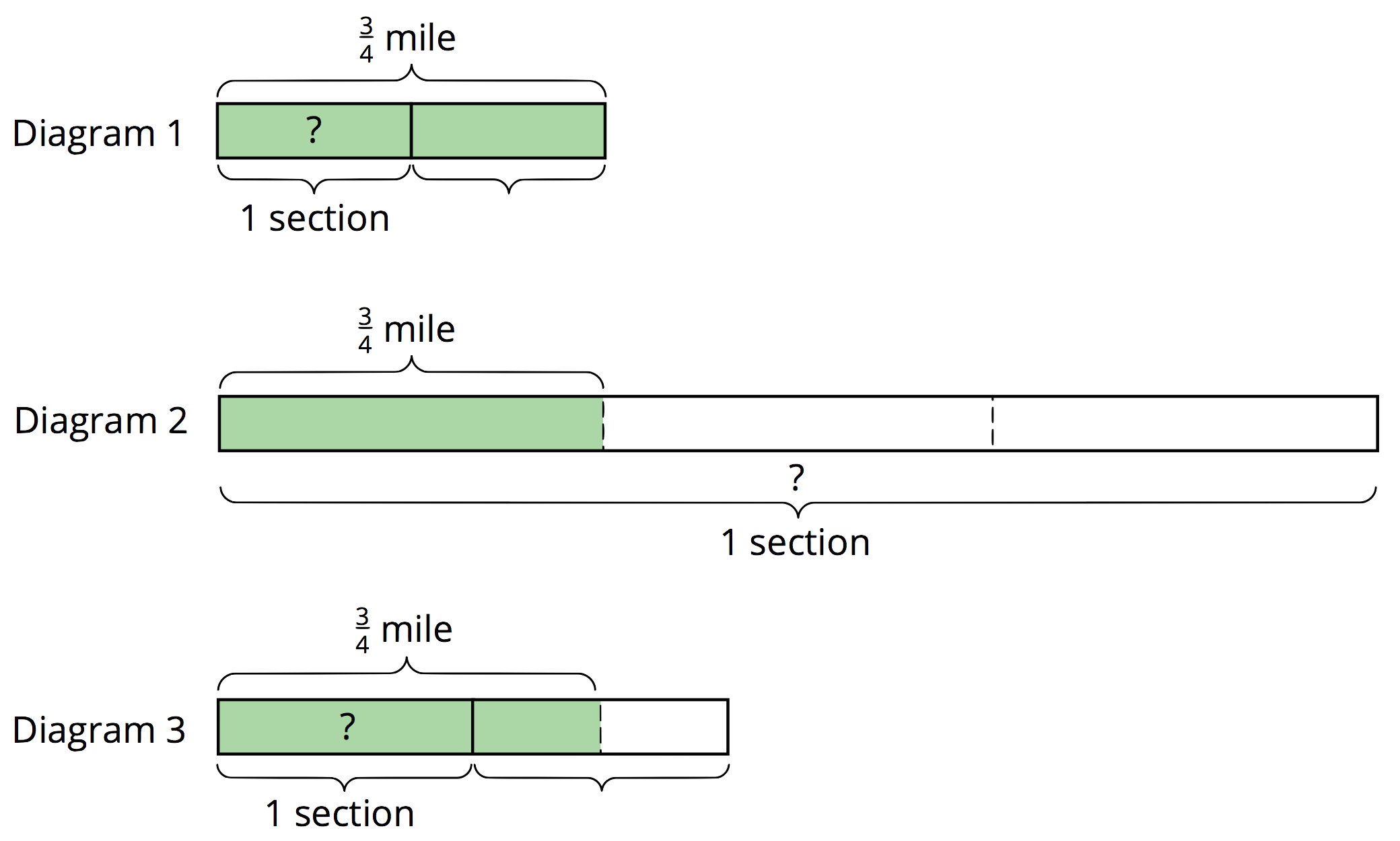




### 3 One Container and One Section of Highway

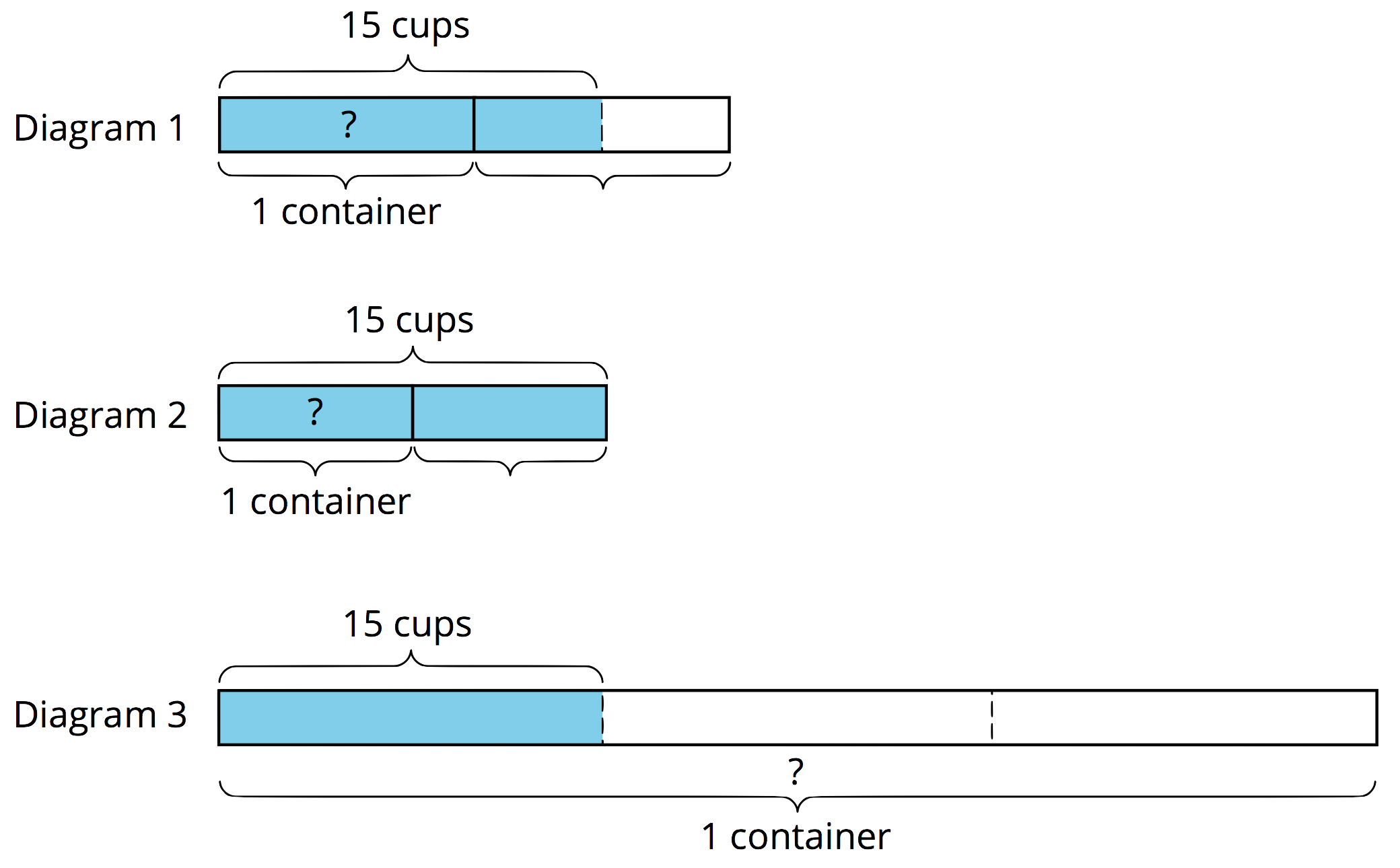
#### Images for Launch





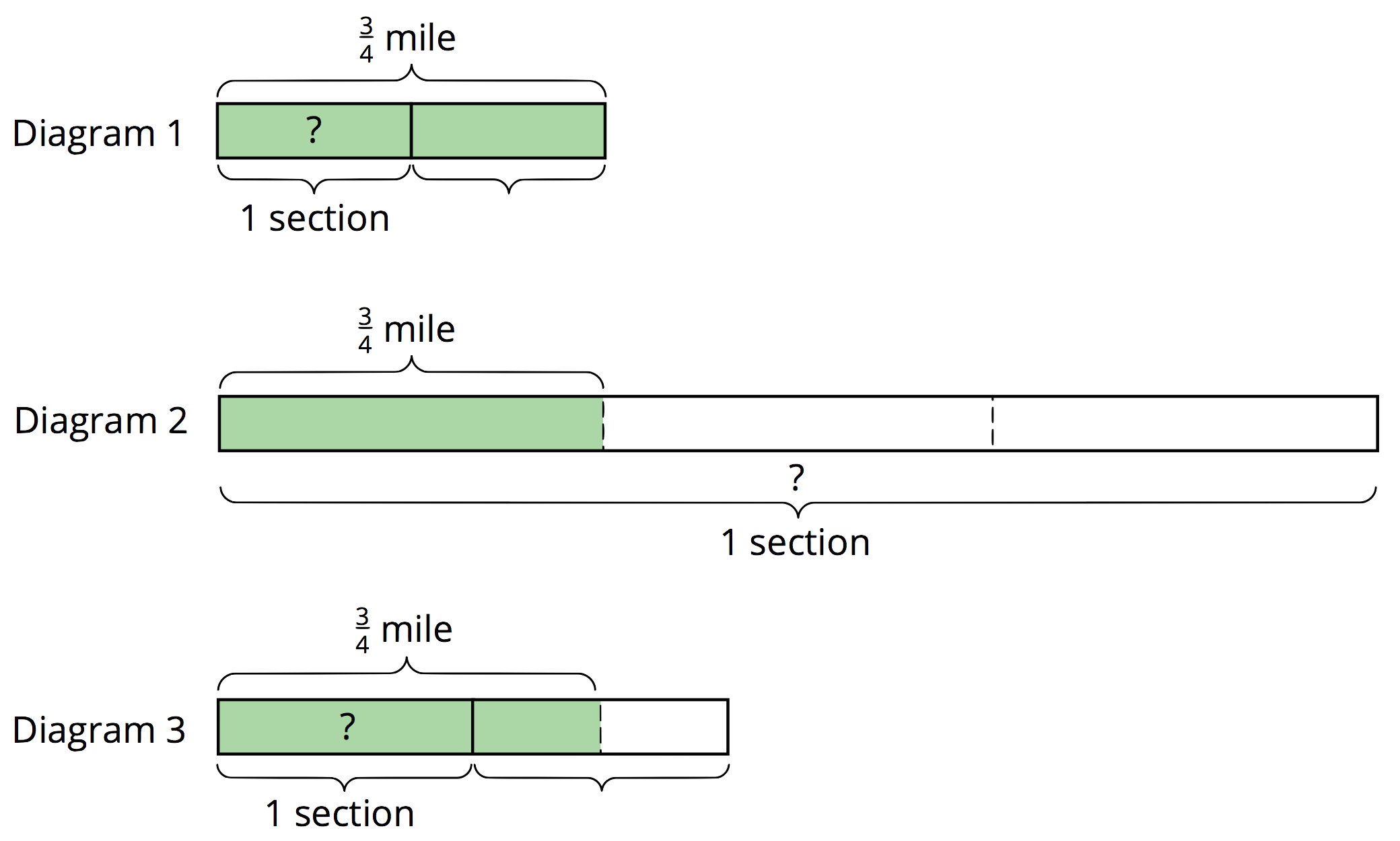
#### Student Task Statement

Here are three tape diagrams that represent situations about filling containers of water.



Match each situation to a diagram and use the diagram to help you answer the question. Then, write a multiplication equation and a division equation to represent the situation.

1. Tyler poured a total of 15 cups of water into 2 equal-sized bottles and filled each bottle. How much water was in each bottle?
2. Kiran poured a total of 15 cups of water into equal-sized pitchers and filled pitchers. How much water was in the full pitcher?
3. It takes 15 cups of water to fill pail. How much water is needed to fill 1 pail?

* Here are tape diagrams that represent situations about cleaning sections of highway.
* 
* Match each situation to a diagram and use the diagram to help you answer the question. Then, write a multiplication equation and a division equation to represent the situation.

1. Priya’s class has adopted two equal sections of a highway to keep clean. The combined length is of a mile. How long is each section?
2. Lin’s class has also adopted some sections of highway to keep clean. If sections are mile long, how long is each section?
3. A school has adopted a section of highway to keep clean. If of the section is mile long, how long is the section?



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