

Name \_\_\_\_\_

## Leapfrog Fractions

These leaping frogs are playing a fraction game.  
They leap from lily pad to lily pad adding up the fractions as they go.

They have three lily pads each.

When they have counted up to one whole, and no more, they can reach the island in the center of the lake.

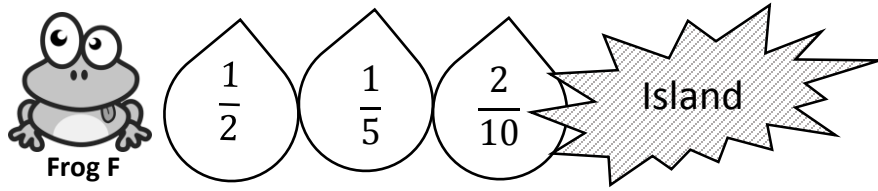
1. Complete the lily pad fractions so that these five frogs can get to the island. Write your answers on the empty lily pads.

The diagram shows five frogs and a central island. The lily pads and their fractions are as follows:

- Frog A:**  $\frac{1}{2}$ ,  $\frac{1}{4}$ , and an empty lily pad.
- Frog B:**  $\frac{3}{6}$ ,  $\frac{1}{3}$ , and an empty lily pad.
- Frog C:**  $\frac{3}{5}$ ,  $\frac{1}{10}$ , and an empty lily pad.
- Frog D:**  $\frac{1}{8}$ ,  $\frac{1}{8}$ , and an empty lily pad.
- Frog E:**  $\frac{2}{6}$ ,  $\frac{1}{2}$ , and an empty lily pad.

The central island is labeled "Island".

2. Frog F wants to join his friends on the island. His three lily pads are:



Can he make it? \_\_\_\_\_

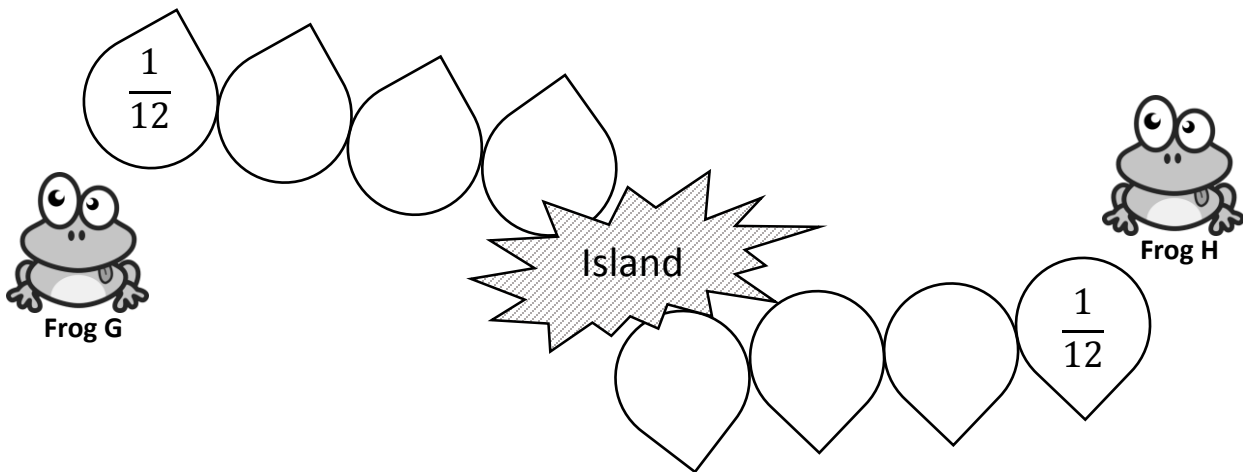
Show how you figured this out.

3. Two more frogs start a new version of the game that they think will be more challenging.

Here are their rules:

- They have to use *four* lily pads each
- Their first lily pad is  $\frac{1}{12}$
- Neither frog can have the same lily pad label as the other frog (except for the first one).
- They still have to add up to one whole, and no more, to reach the island.

Show two ways the frogs might label their lily pads:



Leapfrog Fractions Grade 4	Points	Section points
<p>1. Gives correct answers:</p> <p>Frog A: <b>1/4</b></p> <p>Frog B: <b>1/6</b></p> <p>Frog C: <b>3/10</b></p> <p>Frog D: <b>3/4</b></p> <p>Frog E: <b>1/6</b></p> <p><b>Accept equivalent fractions</b></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>5</p>
<p>2. Gives correct answer: <b>No</b></p> <p>Shows work such as:</p> <p><math>1/2 = 5/10</math>   <math>1/5 = 2/10</math>   <math>5 + 2 + 2 = 9</math></p> <p>So Frog F is <math>1/10</math> short</p> <p>Accept diagrams</p>	<p>1</p> <p>1</p>	<p>2</p>
<p>3. Accept any three fractions that, along with <math>1/12</math>, add up to 1 whole, such as:</p> <p>Frog E <b><math>1/12, 2/12, 3/12, 6/12</math></b></p> <p>Frog F <b><math>1/12, 1/6, 1/2, 1/4</math></b></p> <p>– Other than the first <math>1/12</math>, neither frog may have the same fraction</p> <p>– Accept equivalent fractions</p>	<p>1</p> <p>1</p>	<p>2</p>
<b>Total Points</b>		<b>9</b>