Divide fractions by whole numbers in recipes.

From the list of ingredients below, what quantity of each ingredient would you need to make a fourth of the original recipe?

**Banana cake: ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2 1/2 cups all-purpose flour</td>
<td></td>
</tr>
<tr>
<td>1 tablespoon baking soda</td>
<td></td>
</tr>
<tr>
<td>1 pinch salt</td>
<td></td>
</tr>
<tr>
<td>1/2 cup unsalted butter</td>
<td></td>
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<tr>
<td>1/2 cup chopped walnuts</td>
<td></td>
</tr>
<tr>
<td>1 cup white sugar</td>
<td></td>
</tr>
<tr>
<td>3/4 cup light brown sugar</td>
<td></td>
</tr>
<tr>
<td>2 eggs</td>
<td></td>
</tr>
<tr>
<td>4 ripe bananas, mashed</td>
<td></td>
</tr>
<tr>
<td>1 1/3 cup buttermilk</td>
<td></td>
</tr>
</tbody>
</table>
Divide fractions by whole numbers in recipes.

From the list of ingredients below, what quantity of each ingredient would you need to make a fourth of the original recipe?

**Banana cake: ingredients**

- 2 \( \frac{1}{2} \) cups all-purpose flour
- 1 tablespoon baking soda
- 1 pinch salt
- \( \frac{1}{2} \) cup unsalted butter
- \( \frac{1}{2} \) cup chopped walnuts
- 1 cup white sugar
- \( \frac{3}{4} \) cup light brown sugar
- 2 eggs
- 4 ripe bananas, mashed
- cup buttermilk

The original recipe calls for 2 \( \frac{1}{2} \) cups all-purpose flour. So if you want to make a fourth of 2 \( \frac{1}{2} \) cups all-purpose flour, divide 2 \( \frac{1}{2} \) by 4.

\[
2 \frac{1}{2} \div 4 = 2 \frac{1}{2} \div \frac{4}{1} = 2 \frac{1}{2} \times \frac{1}{4} = \frac{(2\times2+1)}{2} \times \frac{1}{4} = \frac{5}{8} \times \frac{1}{4} = \frac{5}{32}
\]

Therefore, you’ll need \( \frac{5}{32} \) cups all-purpose flour to make a fourth of the original recipe.

As we can see, we have to divide all the quantities by 4, which means to multiply them by \( \frac{1}{4} \).

So, the ingredients for the fourth of the original recipe of banana cake is:

- \( \frac{5}{8} \) cups all-purpose flour
- \( \frac{1}{4} \) cup white sugar
- \( \frac{1}{4} \) tablespoon baking soda
- \( \frac{3}{8} \) cup light brown sugar
- \( \frac{1}{4} \) pinch salt
- \( \frac{1}{2} \) eggs
- \( \frac{1}{8} \) cup unsalted butter
- 1 ripe bananas, mashed
- \( \frac{1}{3} \) cup buttermilk