



# Fractions as Sums

Let's write fractions as sums.

## Activity 1

### Barley Soup

Lin is learning to make barley soup, using a family recipe. Here are some ingredients in the recipe:

- $\frac{3}{4}$  cup barley
- $\frac{5}{4}$  cups chopped celery
- $\frac{6}{4}$  cups chopped carrots
- 1 cup chopped onions
- $2\frac{1}{4}$  cups vegetable broth



1. Lin only has one measuring cup that measures  $\frac{1}{4}$  cup. Show how Lin could use the cup to measure the ingredients in the recipe.
  - Barley:
  - Celery:
  - Carrots:
  - Onions:
  - Vegetable broth:

2. Lin finds a  $\frac{3}{4}$ -cup. She can now measure the ingredients, using both a  $\frac{3}{4}$ -cup and a  $\frac{1}{4}$ -cup. Show how she could use the cups to measure the ingredients in the recipe.

◦ Barley:

◦ Onions:

◦ Celery:

◦ Vegetable broth:

◦ Carrots:



## Activity 2

### Sums in Fifths and Thirds

1. Use different combinations of fifths to make a sum of  $\frac{9}{5}$ .

a.  $\frac{9}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

b.  $\frac{9}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

c.  $\frac{9}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

d.  $\frac{9}{5} = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$

2. Write different ways to use thirds to make a sum of  $\frac{4}{3}$ . How many can you find? Write an equation for each combination.

3. Is it possible to write any fraction with a denominator of 5 as a sum of other fifths? Explain or show your reasoning.