

Lesson 7: Fractions as Sums

- Let's write fractions as sums.

7.1: Barley Soup

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



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

1. Lin has only one measuring cup that measures $\frac{1}{4}$ cup. Show how Lin could use the cup to measure the right amount of each ingredient.

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|------------|--------------------|
| ○ Barley: | ○ Onions: |
| ○ Celery: | ○ Vegetable broth: |
| ○ Carrots: | |

2. Lin later found a $\frac{3}{4}$ -cup measuring cup. Show how she could use the cups to measure the right amount of each ingredient.

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|------------|--------------------|
| ○ Barley: | ○ Onions: |
| ○ Celery: | ○ Vegetable broth: |
| ○ Carrots: | |

7.2: 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 think of? 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.