

Name: ..... Class: .....



How to decompose fractions in multiple ways

a. Decompose  $\frac{8}{11}$  as a sum of fractions three different ways.

b. Decompose  $\frac{10}{12}$  as a sum of fractions three different ways.

Pick from the set of fractions below.

$$\frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{7}{12}, \frac{8}{12}, \frac{9}{12}$$

c. Decompose  $\frac{5}{4}$  as a sum of fractions in one way.

$$\frac{1}{4}, \frac{2}{4}, \frac{3}{4}$$



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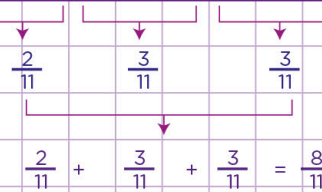
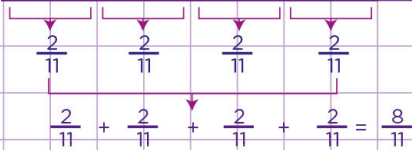
a. Decompose  $\frac{8}{11}$  as a sum of fractions three different ways.

Let's first of all use a model to break the fraction into unit fractions



$$\frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} + \frac{1}{11} = \frac{8}{11}$$

Secondly, let's find some other ways we can decompose  $\frac{8}{11}$  using models.



b. Decompose  $\frac{10}{12}$  as a sum of fractions three different ways.

Pick from the set of fractions below.

$$\frac{2}{12}, \frac{3}{12}, \frac{4}{12}, \frac{5}{12}, \frac{6}{12}, \frac{7}{12}, \frac{8}{12}, \frac{9}{12}$$

$$\frac{10}{12} = \frac{3}{12} + \frac{3}{12} + \frac{4}{12}$$

$$\frac{10}{12} = \frac{2}{12} + \frac{8}{12}$$

$$\frac{10}{12} = \frac{4}{12} + \frac{6}{12}$$

c. Decompose  $\frac{5}{4}$  as a sum of fractions in one way.

$$\frac{1}{4}, \frac{2}{4}, \frac{3}{4}$$

$$\frac{5}{4} = \frac{2}{4} + \frac{3}{4}$$

