Adding and Subtracting Fractions with Like Denominators

Lesson 2

1. Use the fraction manipulatives to show that the improper fractions and mixed numbers are equivalent. Then, draw a picture of the manipulatives.
2. Use the fraction manipulatives to convert the improper fractions into mixed numbers. Then, draw a picture of the manipulatives.
3. Use your fraction manipulatives to convert the mixed numbers into improper fractions. Then, draw a picture of the manipulatives.
4. Why are there multiple ways to write a mixed number as an improper fraction? Explain.
5. Convert the following improper fractions to mixed numbers.
6. Convert the following mixed numbers to improper fractions.

Adding and Subtracting Fractions with Like Denominators

Lesson 3

Use the given model to evaluate each expression.

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Lesson 4

The following pages contain the cards students will use to create a complete chain. Students need to cut apart the cards and arrange them in a chain to link all cards. The cards are labeled for easy checking.

The correct card order is A, F, J, B, G, D, L, C, K, E, H, I.

*Note: the chain can begin with any card, but the sequence of cards will remain the same.*

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| **A** | | | **B** | |
| 2 | | Shawn wants to read 2 books over the weekend. She reads of the first book on Friday evening. What fraction of the books does Shawn have left to read on Saturday and Sunday? |  | Miya walked of a mile in the morning and after school. How much did Miya walk altogether? |
| **C** | | | **D** | |
|  | Adam practices the drums for hours and his guitar for hours more. How many hours does Adam practice his instruments? | |  | In their championship win, the Rockets had two leading scorers. Matthew scored of the Rockets’ points, and Lukas scored of the Rockets’ points. By what fraction did Lukas outscore Matthew? |
| **E** | | | **F** | |
|  | | Julia is saving to buy a new basketball. She has dollars in her change bank and dollars in her hidden book. How much does Julia have saved towards her basketball? |  | Patty has cakes left over from her party. After giving cake to her friends to take home, she has of a cake left. How much cake did Patty give to her friends? |
| **G** | | | **H** | |
|  | | The Thompsons have a full box of cereal. Randy eats of the cereal and Karen eats of the cereal. How much cereal is left? | 4 | A -inch pencil eraser is placed on a -inch pencil. What is the total length of the pencil and eraser? |
| **I** | | | **J** | |
|  | | Danny needs cups of tomato sauce for his pasta sauce recipe. If a can has cups of tomato sauce, how much more does Danny need? | 1 | Riley is preparing soup. He fills a pot full with water and of the pot with vegetables. What fraction of the pot is still empty? |
| **K** | | | **L** | |
|  | | Jessica painted of her room on Saturday and of her room on both Sunday and Monday. How much has Jessica painted so far? |  | Leya is riding in a bike race. She has already finished of the race. How much does Leya has left to ride? |

Adding and Subtracting Fractions with Like Denominators

Lessons 1 – 4

1. Decompose the fraction using a sum of fractions.
   1. Which of the following sums are equivalent to ? Choose all that apply.

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* 1. What is another way to write as a sum of two fractions?
  2. What is another way to write as a sum of three fractions?

1. Decompose the fraction using a difference of fractions.
   1. Which of the following differences are equivalent to ? Choose all that apply.

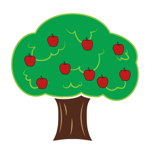
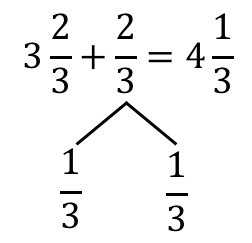
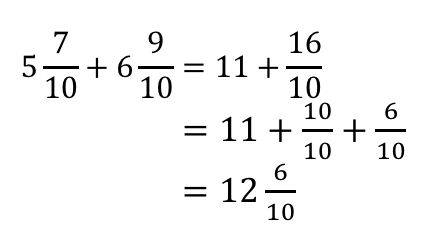
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* 1. What is another way to write as a difference of two fractions?
  2. What is another way to write as a difference of three fractions?

1. Decompose the mixed number into a fraction expression.
   1. Which of the following expressions are equivalent to ? Choose all that apply.

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* 1. What is another way to write as a fraction expression?

1. Consider the fraction .
   1. Cody says the only way to decompose the fraction is using the sum , because it takes five ones to equal five, so it has to take five one-sixths to equal . Do you agree or disagree with Cody? Explain your reasoning.
   2. Sheina says that because is so close to one whole, the only decomposition that can be used is the difference . Do you agree or disagree with Sheina? Explain your reasoning.
2. Ethan picks pounds of apples from a tree in his school garden.
   1. If Ethan gives pounds of the apples to his teacher Ms. Charm, how many pounds of apples does Ethan have left? Explain your reasoning.
   2. Of the pounds of apples Ethan has left, he then takes pounds for his mother. How many pounds of apples remain? Explain your reasoning.
   3. Ethan gives the rest of the apples to the school cafeteria to make apple cobbler for the teachers. The recipe requires 3 pounds of apples. How many more pounds of apples does the cafeteria need? Explain your reasoning.
3. Beatrice is making her grandmother's legendary Fruity Tea for a party. After looking through the recipe, Beatrice sees that she will mix quarts of fruit juice with quarts of tea.
   1. As Beatrice is planning, she finds a 14-quart container to serve the Fruity Tea. Is this container large enough to hold Beatrice's batch of Fruity Tea? Explain your reasoning.
   2. How much Fruity Tea will Beatrice make using this recipe? Explain your reasoning.
4. Jae adds and . Jae shows his thinking here.
   1. Explain the steps Jae takes in his work.
   2. What is another way to add and ? Explain your thinking.
5. Micala adds and . She shows her work here.
   1. Explain the steps Micala takes in her work.
   2. What is another way to add and ? Explain your thinking.