## Lesson 8: Addition of Fractions

* Let’s explore sums of fractions on a number line.

### Warm-up: Notice and Wonder: A Fraction on a Number Line

What do you notice? What do you wonder?



### 8.1: Sum of Jumps

* 1. On each number line, draw two “jumps” to show how to use sixths to make a sum of $\frac{8}{6}$. Then, write an equation to represent each combination of jumps.
	+ 
	+ 
	1. Noah draws the following diagram and writes: $\frac{8}{6}=\frac{6}{6}+\frac{2}{6}$ and $\frac{8}{6}=1+\frac{2}{6}$. Which equation is correct? Explain your reasoning.
	+ 
	1. On each number line, draw “jumps” to show how to use thirds to make a sum of $\frac{7}{3}$. Then, write an equation to represent each combination of jumps.
	+ 
	+ 
	1. Write $\frac{7}{3}$ as a sum of a whole number and a fraction.

### 8.2: What is the Sum?

1. Use a number line to represent each addition expression and to find its value.
	1. $\frac{5}{8}+\frac{2}{8}$
	* 
	1. $\frac{1}{8}+\frac{9}{8}$
	* 
	1. $\frac{11}{8}+\frac{9}{8}$
	* 
	1. $2\frac{1}{8}+\frac{4}{8}$
	* 
2. Priya says the sum of $1\frac{2}{5}$ and $\frac{4}{5}$ is $1\frac{6}{5}$. Kiran says the sum is $\frac{11}{5}$. Tyler says it is $2\frac{1}{5}$. Do you agree with any of them? Explain or show your reasoning. Use one or more number lines if you find them helpful.
* 
* 
* 

### 8.3: Make Two Jumps

Here are four number lines, each with a point on it.

1. 
2. 
3. 
4. 

For each number line, label the point. This is your target. Make two forward jumps to get from 0 to the target.

* Pick a card from the set given to you. Use the fraction on it for your first jump. Draw the jump and label it with the fraction.
* From there, draw the second jump to reach the target. What fraction do you need to add? Label the jump with the fraction.
* Write an equation to represent the sum of your two fractions.



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