## Grade 4 Unit 3

Lesson 9
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## Unit 3 Lesson 9: Differences of Fractions

## WU True or False: Sums of Tenths (Warm up)

## Student Task Statement

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $\frac{1}{10}+\frac{2}{10}+\frac{3}{10}=1$
- $1+\frac{7}{10}=\frac{3}{10}+\frac{4}{10}+\frac{10}{10}$
- $\frac{5}{10}+1=\frac{6}{10}$
- $\frac{2}{10}+\frac{10}{10}=1+\frac{1}{5}$


## 1 Jump to Subtract

## Student Task Statement

1. To subtract different fractions from $\frac{11}{6}$, Noah draws "jumps" on number lines.

a. The first diagram shows how he finds $\frac{11}{6}-\frac{7}{6}$. What is the value of $\frac{11}{6}-\frac{7}{6}$ ?
b. Write an equation to show the difference represented by each of Noah's diagrams.
2. Here is another diagram Noah draws:


Which equations could the diagram represent? Explain your reasoning.

$$
\begin{aligned}
& \frac{11}{6}-\frac{6}{6}=\frac{5}{6} \\
& \frac{11}{6}-1=\frac{5}{6} \\
& 1 \frac{5}{6}-1=\frac{5}{6}
\end{aligned}
$$

3. Use a number line to represent each difference and to find its value.
a. $\frac{8}{3}-\frac{2}{3}$

b. $\frac{8}{3}-\frac{4}{3}$

c. $\frac{8}{3}-1$


## 2 What's the Difference?

## Student Task Statement

Use a number line to represent each difference and to find its value.

1. $\frac{13}{8}-\frac{2}{8}$

2. $\frac{13}{8}-\frac{6}{8}$

3. $\frac{13}{8}-1$

4. $1 \frac{5}{8}-\frac{7}{8}$

5. $1 \frac{5}{8}-1$

6. $1 \frac{5}{8}-1 \frac{4}{8}$


## 3 Make a Jump, Subtraction Edition (Optional)

## Student Task Statement

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

1.

2.

3.

4.

The point you labeled is your target.

- Pick a card from the set given to you. Locate and label the fraction on the number line.
- From that point, draw one or more jumps to reach the target. What do you need to subtract? Label each jump you draw.
- Write an equation to represent the difference of your two fractions.

