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## Estimate Fraction Sums and Differences

## Can make reasonable estimates of fraction sums and differences.

Florida's B.E.S.T.

- Fractions 5.FR.2.1
- Algebraic Reasoning 5.AR.1.2
- Mathematical Thinking \& Reasoning

MTR.1.1, MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1

## UNLOCK the Problem <br> Rabl <br> World

Kimberly will be riding her bike to school this year. The distance from her house to the end of the street is $\frac{1}{6}$ mile. The distance from the end of the street to the school is $\frac{3}{8}$ mile. About how far is Kimberly's house from school?

You can use benchmarks to find reasonable estimates by rounding fractions to $0, \frac{1}{2}$, or 1 .

## One Way use a number line.

Estimate. $\frac{1}{6}+\frac{3}{8}$


STEP 1 Place a point at $\frac{1}{6}$ on the number line.
The fraction is between $\qquad$ and $\qquad$ .

The fraction $\frac{1}{6}$ is closer to the benchmark $\qquad$ .


Round to $\qquad$ .

STEP 2 Place a point at $\frac{3}{8}$ on the number line.
The fraction is between $\qquad$ and $\qquad$ .

The fraction $\frac{3}{8}$ is closer to the benchmark $\qquad$ .


Round to $\qquad$ .

STEP 3 Add the rounded fractions.


So, Kimberly's house is about $\qquad$ mile from the school.

## Another Way Use mental math.

You can compare the numerator and the denominator to round a fraction and find a reasonable estimate.

Estimate. $\frac{9}{10}-\frac{5}{8}$
STEP 1 Round $\frac{9}{10}$. $\quad \begin{aligned} & \text { Think: The numerator is about the same } \\ & \text { as the denominator. }\end{aligned}$ Round the fraction $\frac{9}{10}$ to $\qquad$

## Remember

A fraction with the same numerator and denominator, such as $\frac{2}{2}, \frac{5}{5}, \frac{12}{12}$, or $\frac{96}{96}$, is equal to 1.

STEP 2 Round $\frac{5}{8}$. $\quad \begin{aligned} & \text { Think: The numerator is about half } \\ & \text { the denominator. }\end{aligned}$ Round the fraction $\frac{5}{8}$ to $\qquad$

STEP 3 Subtract.

$$
\begin{array}{rll}
\frac{9}{10} & \rightarrow \\
-\frac{5}{8} & \rightarrow & - \\
-
\end{array}
$$

So, $\frac{9}{10}-\frac{5}{8}$ is about $\qquad$ .

## Try This! Estimate.

(A) $2 \frac{7}{8}-\frac{2}{5}$
(B) $1 \frac{8}{9}+4 \frac{8}{10}$

