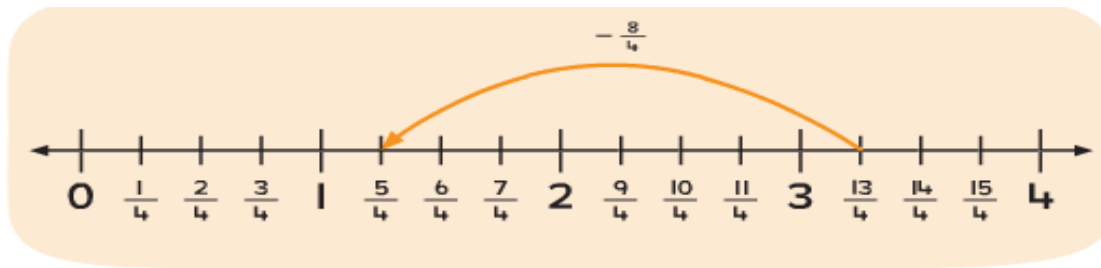# Subtracting Fractions

Take Away Strategy: take away the numerators to find the difference

$$\frac{13}{4} - \frac{8}{4} = \frac{5}{4}$$
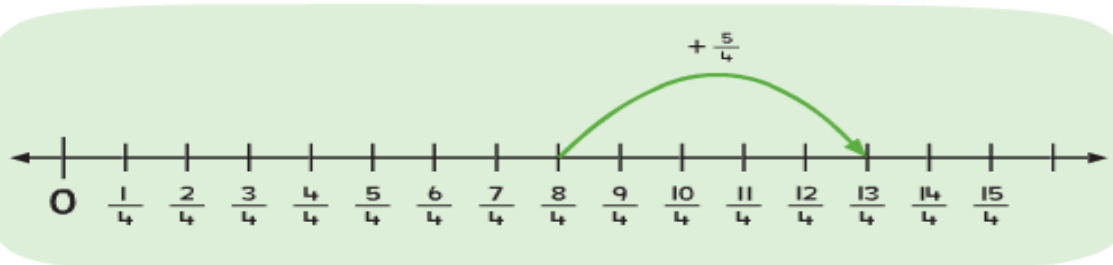
Number Line Model: Start at $\frac{13}{4}$ and jump backwards $\frac{8}{4}$. The answer is the fraction you land on ($\frac{5}{4}$).

Comparison Strategy: count on to find the answer

$$\frac{13}{4} - \frac{8}{4} = \frac{5}{4}$$

Number Line Model: Count on from $\frac{8}{4}$ until you get to $\frac{13}{4}$. The amount of hops you make ($\frac{5}{4}$) is the answer.

Decomposing Whole Numbers to subtract whole numbers and fractions

$$4\frac{1}{5} - 2\frac{3}{5} = 1\frac{3}{5}$$

Step 1: I noticed that I can't take away $\frac{1}{5}$ from $\frac{3}{5}$.

Step 2: So, I will decompose $4\frac{1}{5}$

$4\frac{1}{5}$
$4 + \frac{1}{5}$
$3 + 1 + \frac{1}{5}$
$3 + \frac{5}{5} + \frac{1}{5}$
$3 + \frac{6}{5}$
$3\frac{6}{5}$

Step 3: Then I will substitute $3\frac{6}{5}$ for $4\frac{1}{5}$ in my original equation.

$$4\frac{1}{5} - 2\frac{3}{5} =$$

is the same as

$$3\frac{6}{5} - 2\frac{3}{5}$$

$$3 - 2 = 1$$

$$\frac{6}{5} - \frac{3}{5} = \frac{3}{5}$$

The difference is $1\frac{3}{5}$