G5-M3-Lesson 8

1. Add or subtract. Draw a number line to model your solution.

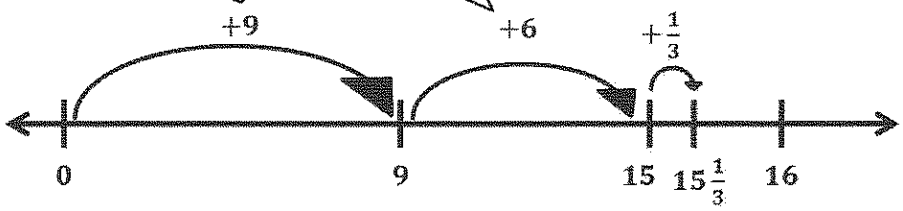
a. $9\frac{1}{3} + 6 = 15\frac{1}{3}$

$9\frac{1}{3}$ is the same as $9 + \frac{1}{3}$. I can add the whole numbers, $9 + 6 = 15$, and then add the fraction, $15 + \frac{1}{3} = 15\frac{1}{3}$.

I can model this addition using a number line. I'll start at 0 and add 9.

I add 6 to get to 15.

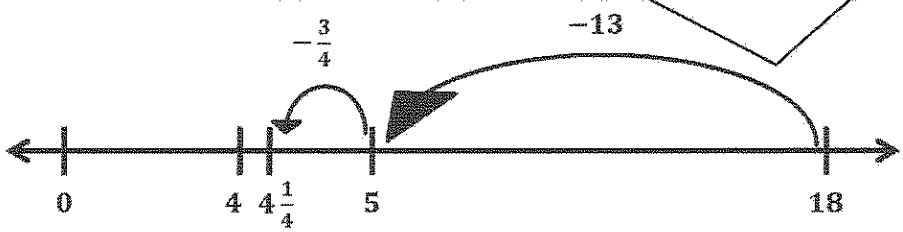
Then, I add $\frac{1}{3}$ to get to $15\frac{1}{3}$.



b. $18 - 13\frac{3}{4} = 4\frac{1}{4}$

$13\frac{3}{4}$ is the same as $13 + \frac{3}{4}$. I can subtract the whole numbers first, $18 - 13 = 5$. Then, I can subtract the fraction, $5 - \frac{3}{4} = 4\frac{1}{4}$.

I start at 18 and subtract 13 to get 5. Then, I subtract $\frac{3}{4}$ to get $4\frac{1}{4}$.



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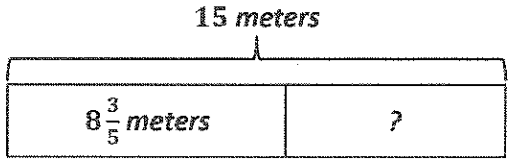
2. The total length of two strings is 15 meters. If one string is $8\frac{3}{5}$ meters long, what is the length of the other string?

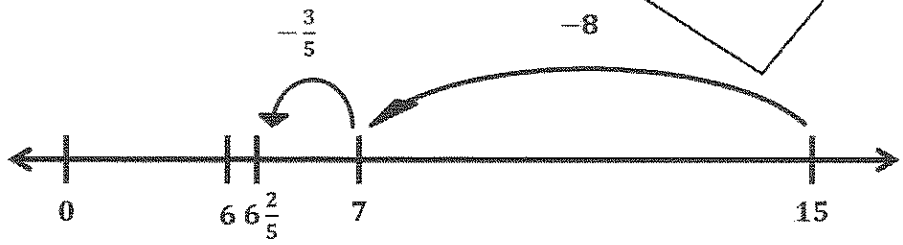


I can use subtraction, $15 - 8\frac{3}{5}$, to find the length of the other string.

My tape diagram models this word problem. I need to find the length of the missing part.

$15 - 8\frac{3}{5} = 6\frac{2}{5}$

I can draw a number line to solve. I'll start at 15 and subtract 8 to get 7. Then, I'll subtract $\frac{3}{5}$ to get $6\frac{2}{5}$.



The length of the other string is $6\frac{2}{5}$ meters.

Below is an alternative method to solve this problem.

I can express 15 as a mixed number, $14\frac{5}{5}$.

$15 - 8\frac{3}{5}$

$14 \quad \frac{5}{5}$

$14\frac{5}{5} - 8\frac{3}{5} = 6\frac{2}{5}$

Now, I can subtract the whole numbers and subtract the fractions.

$14 - 8 = 6$

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

The difference is $6\frac{2}{5}$.

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