

Multi-Step Word Problems

Fractions (Adding and Subtracting)

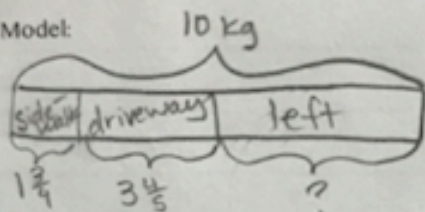
M3 L15-16

John used $1\frac{3}{4}$ kg of salt to melt the ice on his sidewalk. He then used another $3\frac{4}{5}$ kg on the driveway. If he originally bought 10 kg of salt, how much does he have left?

TS: John has $4\frac{9}{20}$ kg of salt left.

est: $10 - 2 - 4 = 4$

Model:



Expression:

$$10 - 1\frac{3}{4} - 3\frac{4}{5} \quad \text{OR} \quad 10 - (1\frac{3}{4} + 3\frac{4}{5})$$

$$8\frac{1}{4} - 3\frac{4}{5}$$

$$8 - 3\frac{4}{5} + \frac{1}{4}$$

$$4\frac{1}{5} + \frac{1}{4} = 4\frac{4}{20} + \frac{5}{20} = 4\frac{9}{20}$$

$$10 - (1\frac{15}{20} + 3\frac{16}{20})$$

$$10 - 4\frac{31}{20}$$

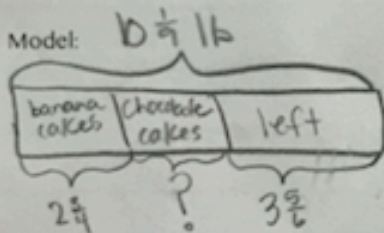
$$10 - 5\frac{11}{20}$$

$$4\frac{9}{20}$$

Mia bought $10\frac{1}{9}$ lb of flour. She used $2\frac{3}{4}$ lb of flour to bake banana cakes and some to bake chocolate cakes. After baking all the cakes, she had $3\frac{5}{6}$ lb of flour left. How much flour did she use to bake the chocolate cakes?

TS: Mia used $3\frac{19}{36}$ lb of flour to bake the chocolate cake.

Model:



Expression:

$$10\frac{1}{9} - 2\frac{3}{4} - 3\frac{5}{6} \quad \text{OR} \quad 10\frac{1}{9} - (2\frac{3}{4} + 3\frac{5}{6})$$

$$7\frac{1}{4} + \frac{1}{9} - 3\frac{5}{6}$$

$$7\frac{9}{36} + \frac{4}{36} - 3\frac{30}{36}$$

$$7\frac{13}{36} - 3\frac{30}{36}$$

$$4\frac{13}{36} - 3\frac{30}{36}$$

$$1 - 3\frac{30}{36} + \frac{13}{36}$$

$$3\frac{13}{36} - 3\frac{30}{36}$$

$$3\frac{13}{36} + \frac{4}{36} = 3\frac{17}{36}$$

$$10\frac{1}{9} - (2\frac{9}{12} + 3\frac{10}{12})$$

$$10\frac{1}{9} - 6\frac{17}{12}$$

$$10 - 6\frac{17}{12} + \frac{1}{9}$$

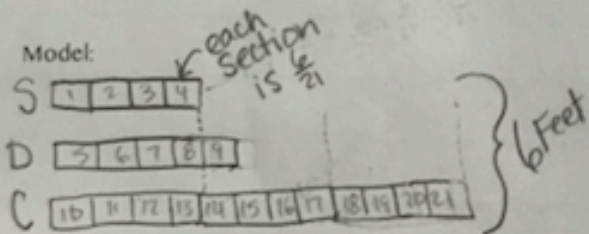
$$3\frac{5}{12} + \frac{1}{9}$$

$$3\frac{15}{36} + \frac{4}{36} = 3\frac{19}{36}$$

Half of Sarah's wire is equal to $\frac{2}{5}$ of Daniel's. Chris has 3 times as much as Sarah. In all, their wire measures 6 ft. How long is Sarah's wire in feet?

TS: Sarah's wire is $1\frac{1}{7}$ feet long.

Model:



Expression:

$$\frac{6}{21} + \frac{6}{21} + \frac{6}{21} + \frac{6}{21} = \frac{24}{21} = 1\frac{3}{21}$$

$$1\frac{1}{7}$$

$$6 \div 21 = \frac{6}{21}$$