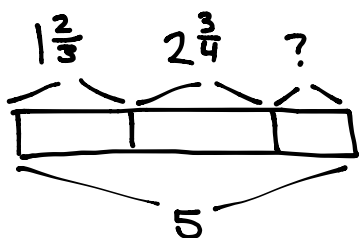Name _____   Date _____

Solve the word problems using the RDW strategy. Show all your work.

1. A baker buys a 5 lb bag of sugar. She uses $1\frac{2}{3}$ lb to make some muffins and $2\frac{3}{4}$ lb to make a cake. How much sugar does she have left?

$$1\frac{2}{3} + 2\frac{3}{4} = 3\frac{2}{3} + \frac{3}{4} = 3 + \frac{8}{12} + \frac{9}{12} = 3\frac{17}{12} = 4\frac{5}{12}$$

$$5 - 4\frac{5}{12} = 1 - \frac{5}{12} = \frac{12}{12} - \frac{5}{12} = \frac{7}{12}$$

The baker has $\frac{7}{12}$ pound of sugar left over.

2. A boxer needs to lose $3\frac{1}{2}$ kg in a month to be able to compete as a flyweight. In three weeks, he lowers his weight from 55.5 kg to 53.8 kg. How many kg must the boxer lose in the final week to be able to compete as a flyweight?
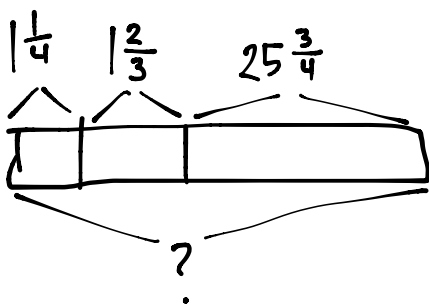
$$55\frac{5}{10} - 53\frac{8}{10} = 2\frac{5}{10} - \frac{8}{10} = 1\frac{15}{10} - \frac{8}{10} = 1\frac{7}{10} = 1.7$$

$$3\frac{1}{2} - 1\frac{7}{10} = 2\frac{1}{2} - \frac{7}{10} = 2\frac{5}{10} - \frac{7}{10} = 1\frac{15}{10} - \frac{7}{10} = 1\frac{8}{10} = 1\frac{4}{5}$$

$1\frac{10}{10}$

He needs to lose $1\frac{8}{10}$ **kg**

3. A construction company builds a new rail line from Town A to Town B. They complete $1\frac{1}{4}$ miles in their first week of work and $1\frac{2}{3}$ miles in the second week. If they still have $25\frac{3}{4}$ left to build, what is the distance from Town A to Town B?

$$1\frac{1}{4} + 1\frac{2}{3} + 25\frac{3}{4} =$$

$$27 + 1 + \frac{2}{3} = 28\frac{2}{3}$$

It is $28\frac{2}{3}$ miles from Town A to Town B.

Lesson 15:   Solve multi-step word problems; assess reasonableness of solutions using benchmark numbers.
Date: 8/7/13

COMMON CORE   engage^ny   **3.D.43**

4. A catering company needs 8.75 lb of shrimp for a small party. They buy $3\frac{2}{3}$ lb of jumbo shrimp, $2\frac{5}{8}$ lb of medium-sized shrimp, and some mini-shrimp. How many pounds of mini-shrimp do they buy?

$$3\frac{2}{3} \quad 2\frac{5}{8} \quad ?$$

$$8\frac{3}{4}$$
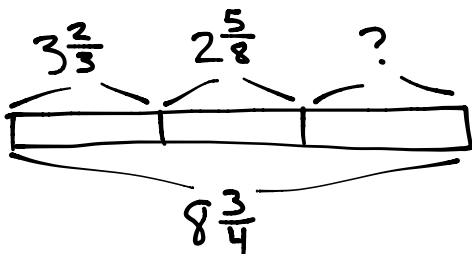
$$3\frac{2}{3} + 2\frac{5}{8} = 5\frac{16}{24} + \frac{15}{24} = 5\frac{31}{24} = 5 + 1\frac{7}{24} = 6\frac{7}{24}$$

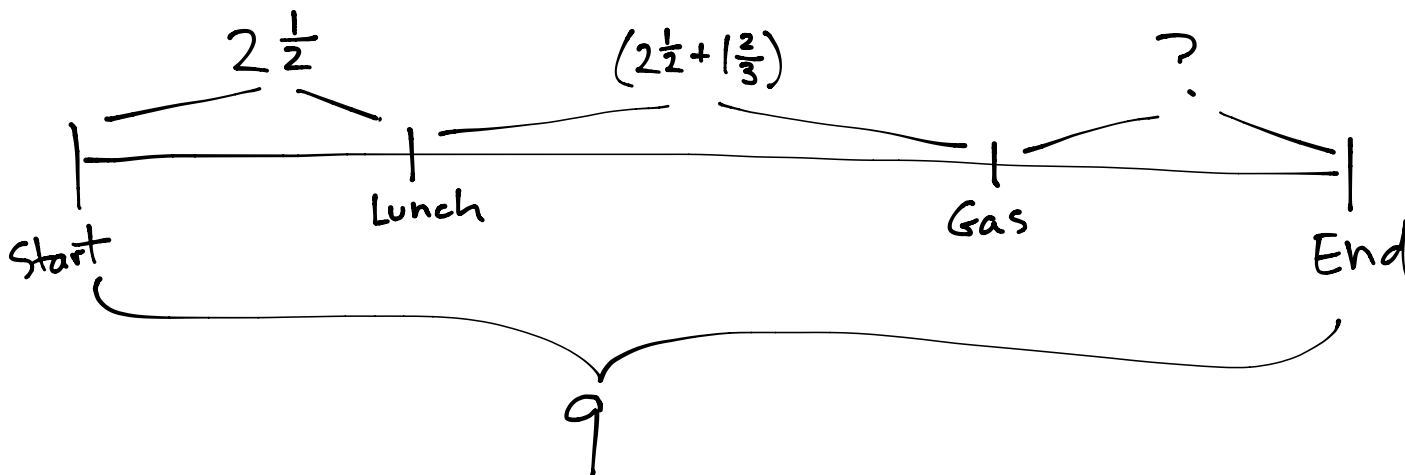$$8\frac{3}{4} - 6\frac{7}{24} = 2\frac{3}{4} - \frac{7}{24}$$

$$= 2 + \left(\frac{3}{4} \times \frac{6}{6}\right) - \frac{7}{24}$$

$$= 2 + \frac{18}{24} - \frac{7}{24}$$

$$= 2\frac{11}{24}$$

They buy $2\frac{11}{24}$ lbs of mini-shrimp.

5. Mark breaks up a 9-hour drive into 3 segments. He drives $2\frac{1}{2}$ hours before stopping for lunch. After driving some more, he stops for gas. If the second segment of his drive was $1\frac{2}{3}$ hours longer than the first segment, how long did he drive after stopping for gas?

$$2\frac{1}{2} \qquad \left(2\frac{1}{2} + 1\frac{2}{3}\right) \qquad ?$$

Start   Lunch   Gas   End

$$9$$

$$2\frac{1}{2} + 2\frac{1}{2} + 1\frac{2}{3}$$

$$5 + 1\frac{2}{3}$$

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

$$9 - 6\frac{2}{3} = 3 - \frac{2}{3} = 2\frac{1}{3}$$

$$2 \quad \frac{3}{3}$$

Mark drove for $2\frac{1}{3}$ hours after stopping for gas.

Lesson 15:   Solve multi-step word problems; assess reasonableness of solutions using benchmark numbers.
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