

Problem of the Day

Each member of the track team runs 15 miles each week. On Monday, Eva runs $2\frac{7}{8}$ miles. She runs $3\frac{1}{4}$ miles on Tuesday and $2\frac{1}{2}$ miles on Wednesday. She runs 11 miles per hour. How many more miles does she need to run?

1/4/10



Objective:

TSWBAT use mental math to
solve equations with
fractions.

Using Mental Math in Equations

$$x + 3\frac{1}{8} = 15\frac{7}{8}$$

1. Start with the whole numbers. Ask yourself what plus **3** gives you **15**?

$$12 + 3 = 15$$

2. Look at the fractions. Ask yourself what plus $\frac{1}{8}$ will give you $\frac{7}{8}$?

$$\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$$

3. Simplify.

$$12\frac{6}{8} = 12\frac{3}{4}$$

Solving Equations with Fractions

$$x - \frac{1}{3} = \frac{5}{6}$$

1. Look at the sign being used in the problem. Use the opposite sign to solve the problem. (* You want to get the letter on one side of the equals sign and the numbers on the other side.)

2. Add or Subtract as needed. Find a common denominator if needed.

$$x - \frac{1}{3} = \frac{5}{6} \rightarrow x - \frac{2}{6} = \frac{5}{6}$$

$$x - \frac{2}{6} + \frac{2}{6} = \frac{5}{6} + \frac{2}{6}$$

$$x = \frac{7}{6}$$

3. Simplify.

$$\begin{array}{r} 6 \overline{) 7} \\ -6 \\ \hline 1 \end{array} \quad x = 1 \frac{1}{6}$$

Real World Problem Solving

During the first week in January, a rain gauge collected $\frac{1}{2}$ inch of rain. By the end of the month, the rain gauge showed that the total January rainfall was $2\frac{3}{5}$ inches. How much rain fell after the first week of January?

1. Create an equation using the information from the word problem.

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

2. Follow the steps for solving equations with fractions to solve the problem. Be sure to simplify.

$$X + \frac{1 \times 5}{2 \times 5} = 2\frac{3 \times 2}{5 \times 2} \rightarrow X + \frac{5}{10} = 2\frac{6}{10}$$

$$X = 2\frac{1}{10}$$

Practice:

Homework:

Practice 4-6

* You can complete enrichment 4-6 for
10 pts extra credit