

JANUARY 14, 2015

STARTER

5TH
6TH

Add each. Answers should be in simplest form.

1. $3\frac{1}{4} + 2\frac{3}{8}$

$$\begin{array}{r} 3\frac{1}{4} \quad \frac{2}{8} \\ + 2\frac{3}{8} \quad \frac{3}{8} \\ \hline 5\frac{5}{8} \end{array}$$

2. $7\frac{2}{5} + 4\frac{1}{2}$

$$\begin{array}{r} 7\frac{2}{5} \quad \frac{4}{10} \\ + 4\frac{1}{2} \quad \frac{5}{10} \\ \hline 11\frac{9}{10} \end{array}$$

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

$$\begin{array}{r} 6\frac{5}{6} \quad \frac{10}{12} \\ + 3\frac{3}{4} \quad \frac{9}{12} \\ \hline 9\frac{19}{12} \\ 10\frac{7}{12} \end{array}$$

1/14 Ratios, Testing and Solving Proportions

What is a ratio?

a comparison of 2 values (numbers)

How do you write a ratio?

Stars to X's

8 to 6

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

8:6

leave
it improper
but simplified



If two ratios can both measure the same things, they are called equivalent.

$\frac{3}{4}$ and $\frac{6}{8}$
for every 3 x's
there are 4 ★'s



$\frac{2}{3}$ and ?? $\frac{4}{6}$, $\frac{8}{12}$, $\frac{10}{15}$, $\frac{24}{36}$, $\frac{642}{963}$

Work with your partner and determine if these ratios are equivalent.

Be ready to explain why or why not.

$$\frac{5 \cdot 4}{8 \cdot 4} \text{ and } \frac{20}{32}$$

Yes, you times top & bottom by the same thing.

$$\frac{4 \cdot 2}{5 \cdot 3} \text{ and } \frac{8}{15}$$

No, you have to times them both by the same number.

$$\frac{3}{2} \text{ and } \frac{4}{6}$$

No, one is improper the other isn't.

What does the variable have to equal in order for the ratios to be equivalent?

$$\frac{3 \cdot 4}{8 \cdot 4} \text{ and } \frac{x}{32}$$

$$x = 12$$

$$\frac{4 \cdot 2}{b \cdot 2} \text{ and } \frac{8}{20}$$

$$b = 10$$

$$\frac{3 \cdot 3}{2 \cdot 3} \text{ and } \frac{9}{n}$$

$$n = 6$$

Solve each proportion...

$$\frac{3 \cdot 3}{8 \cdot 3} = \frac{x}{24}$$

$$9 = x$$

$$\frac{5 \cdot 4}{5 \cdot b} = \frac{5 \cdot 4}{6 \cdot 4}$$

$$5b = 24$$

$$\frac{5b}{5} = \frac{24}{5}$$

$$b = 4\frac{4}{5}$$

$$\begin{array}{r} 4 \\ 5 \overline{)24} \\ \underline{20} \\ 4 \end{array}$$

$$\frac{10 \cdot 3}{10 \cdot 2} = \frac{10 \cdot 3}{n \cdot 3}$$

$$\frac{20}{3} = \frac{3n}{3}$$

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

$$\begin{array}{r} 6 \\ 3 \overline{)20} \\ \underline{18} \\ 2 \end{array}$$

$$\frac{3 \cdot c}{3 \cdot 6} = \frac{8 \cdot 2}{9 \cdot 2}$$

$$\frac{3c}{3} = \frac{16}{3}$$

$$c = 5\frac{1}{3}$$

$$\begin{array}{r} 5 \\ 3 \overline{)16} \\ \underline{15} \\ 1 \end{array}$$

HOMEWORK

Yellow WS 1

Due Friday