

November 4, 2014^{4th}

Starter

7 pts

5,6,7 → 2

3,4 → 1

$$\textcircled{1} \quad \begin{array}{r} 430.2 \\ -9 \end{array}$$

$$\begin{array}{r} -47.8 \\ 9 \overline{)430.2} \\ \underline{-36} \\ 70 \\ \underline{-63} \\ 12 \\ \underline{-12} \\ 0 \end{array}$$

$$\textcircled{2} \quad \begin{array}{r} 22.9 \\ 0.4 \overline{)9.16} \end{array}$$

$$\begin{array}{r} -8 \\ \hline 11 \\ -8 \\ \hline 36 \\ -36 \\ \hline 0 \end{array}$$

$$\textcircled{3} \quad \begin{array}{r} 140. \\ 0.05 \overline{)700} \end{array}$$

$$\begin{array}{r} -5 \\ \hline 20 \\ -20 \\ \hline 0 \end{array}$$



1 1/4 Multiplying Rational Numbers - FRACTIONS!

Method 1:

Multiply then simplify...

$$\begin{aligned} & \frac{5}{6} \cdot \frac{9}{10} \\ & = \frac{45}{60} \\ & = \frac{9}{12} \\ & = \frac{3}{4} \end{aligned}$$

Method 2:

Simplify then multiply...

$$\begin{aligned} & \frac{5}{6} \cdot \frac{9}{10} \\ & = \frac{3}{4} \end{aligned}$$

Cross-cancel

Multiply each... use either method.

$$\frac{2}{3} \cdot \frac{1}{4} = \frac{1}{6}$$

(Note: In the original image, a pink diagonal line is drawn through the fraction $\frac{2}{3} \cdot \frac{1}{4}$ to indicate cancellation. The number 1 is written above the 2, and the number 2 is written below the 4. The final result $\frac{1}{6}$ is written in pink.)

$$\frac{-4}{5} \cdot \frac{3}{5} = \frac{-12}{25}$$

(Note: In the original image, the numbers -4 and 5 in the denominator are crossed out with a blue line. The number 3 is written above the 5 in the numerator. The final result $\frac{-12}{25}$ is written in blue.)

Since you can't cancel, just multiply across

$$\frac{-3}{4} \cdot \frac{-5}{6} = \frac{5}{8}$$

(Note: In the original image, a green diagonal line is drawn through the fraction $\frac{-3}{4} \cdot \frac{-5}{6}$ to indicate cancellation. The number -1 is written above the -3, and the number 2 is written below the 6. The final result $\frac{5}{8}$ is written in green.)

$$\frac{2 \div 2}{12 \div 2} = \frac{1}{6}$$

$$\frac{15 \div 3}{24 \div 3} = \frac{5}{8}$$

Multiply...

$$\frac{-4 \cdot 2}{1 \cdot 3}$$

$$= \frac{-8}{3}$$

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

$$\begin{array}{r} 3 \overline{) 8} \\ \underline{6} \\ 20 \\ \underline{18} \\ 2 \end{array}$$

$$\frac{-9}{10 \div 2} \cdot \frac{-12 \div 2}{1}$$

$$= \frac{54}{5}$$

$$= 10\frac{4}{5}$$


Multiplying Mixed Numbers....

What is always the first step?

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

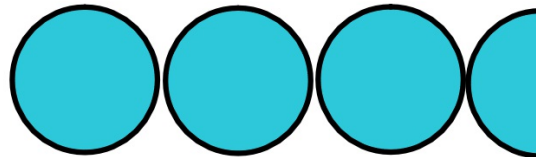
Mixed numbers need to be changed to improper fractions!!

Add


$$3\frac{1}{2} = \frac{7}{2}$$



Multiply



Multiply. Write answer in simplest form - ALWAYS!

$$\begin{aligned}
 & -3\frac{5}{6} \cdot 4\frac{4}{5} \\
 & = -\frac{23}{6} \cdot \frac{24}{5} \\
 & = -\frac{92}{5} \\
 & = -18\frac{2}{5}
 \end{aligned}$$

$\frac{23}{4} \cdot \frac{1}{92}$
 $\begin{array}{r} 18 \\ 5 \overline{)92} \\ \underline{-5} \\ 42 \\ \underline{-40} \\ 2 \end{array}$

$$\begin{aligned}
 & -2\frac{5}{8} \cdot -1\frac{5}{9} \\
 & = \frac{21}{8} \cdot \frac{14}{9} \\
 & = \frac{49}{12} = 4\frac{1}{12}
 \end{aligned}$$

$$\begin{aligned}
 & \left(1\frac{1}{2}\right)\left(1\frac{1}{3}\right)\left(1\frac{5}{6}\right) \\
 & \text{Cancel ones on the top} \\
 & \text{with ones on the bottom} \\
 & = \frac{3}{2} \cdot \frac{4}{3} \cdot \frac{11}{6} \\
 & = \frac{11}{3} \\
 & = 3\frac{2}{3}
 \end{aligned}$$

$$\begin{aligned}
 & \left(-2\frac{1}{4}\right)\left(3\frac{5}{9}\right)\left(-4\frac{1}{6}\right) \\
 & = \frac{-9}{4} \cdot \frac{32}{9} \cdot \frac{-25}{6} \\
 & = \frac{100}{3} \\
 & = 33\frac{1}{3}
 \end{aligned}$$

Homework

White WS 10

Due Thursday