

Addition

1. Find common denominator and equivalent fractions
2. Add the numerators
3. Denominator stays the same
4. Add whole numbers.
5. Reduce

$$\begin{array}{r} 4\frac{3}{5} = 4\frac{9}{15} \\ + 3\frac{2}{3} = 3\frac{10}{15} \\ \hline 7\frac{19}{15} = 8\frac{4}{15} \end{array}$$

Subtraction

1. Find common denominator and equivalent fractions
2. Subtract numerators.
3. Denominator stays the same.
4. Subtract whole numbers.
5. Reduce

IF you need to borrow, borrow from whole number and add to the fraction you already have --

$$\begin{array}{r} 4\frac{3}{5} = 4\frac{9}{15} + \frac{15}{15} = 3\frac{24}{15} \\ - 3\frac{2}{3} = 3\frac{10}{15} \\ \hline 1\frac{14}{15} \end{array}$$

OR find common denominators and then change both mixed numbers to improper fractions and subtract.

$$\begin{array}{r} 4\frac{3}{5} = 4\frac{9}{15} = \frac{69}{15} \\ - 3\frac{2}{3} = 3\frac{10}{15} = \frac{55}{15} \\ \hline 1\frac{14}{15} \end{array}$$

Multiplication

1. Change any mixed #s to improper fractions
2. "Cross out" if possible
3. Multiply numerator by numerator
4. Multiply denominator by denominator
5. Reduce

$$\begin{array}{r} 1\frac{3}{5} \cdot 2\frac{1}{4} = \\ \frac{2}{5} \cdot \frac{9}{4} = \frac{18}{20} = \frac{9}{10} \\ \frac{2}{5} \cdot 1 = \frac{2}{5} = \frac{4}{10} \\ \hline 1\frac{13}{10} = 2\frac{3}{10} \end{array}$$

Division

1. Change any mixed #s to improper fractions
2. Rewrite as a multiplication problem: 1st fraction stays the same, 2nd fraction gets flipped
3. "Cross out" if possible
4. Multiply numerator by numerator
5. Multiply denominator by denominator
6. Reduce

$$\begin{array}{r} 1\frac{3}{5} \div 2\frac{1}{4} = \\ \frac{8}{5} \div \frac{9}{4} = \\ \frac{8}{5} \cdot \frac{4}{9} = \frac{32}{45} \end{array}$$

Mixed Number to Improper Fraction

(Hint: TX)

$$2\frac{1}{2} = \frac{5}{2}$$



Step 1: $2 \times 2 + 1 = 5$

Step 2: Keep the Denominator 2

Improper Fraction to Mixed Number

(Hint: Ned and the Donkey)

Ned (Numerator) always

goes inside the house.

Show Work



$$\begin{array}{r} 5 \\ \underline{2} \quad 2 \\ 4 \\ \hline 1 \end{array}$$