

Adding & Subtracting Fractions

1. Rename the fractions to equivalent fractions with common denominators
2. Add or subtract the numerators and keep the denominator the same
3. If mixed numbers, add or subtract the whole numbers
4. If possible, simplify the answer & change improper fractions to mixed numbers

ex: $4\frac{4}{9} + \frac{2}{3}$

$$\begin{array}{r} 4\frac{4}{9} \times \frac{1}{1} = \frac{4}{9} \\ + \frac{2}{3} \times \frac{3}{3} = \frac{6}{9} \\ \hline \end{array}$$

$$4 \frac{10}{9} = \boxed{5 \frac{1}{9}}$$

Multiplying Fractions

1. Turn a whole number into a fraction by giving it a denominator of 1
2. Cross-simplify the fractions if possible
3. Multiply the 2 numerators and the 2 denominators
4. If possible, simplify the answer & change improper fractions to mixed numbers

ex: $6 \times \frac{2}{3}$

$$\begin{array}{r} \cancel{2} \cancel{6} \times \frac{2}{\cancel{3}} = \frac{4}{1} \\ \hline \end{array}$$

$$= \boxed{4}$$

Dividing Fractions

1. Turn a whole number into a fraction by giving it a denominator of 1
2. Keep the 1st fraction the same, change the division symbol to multiplication, and flip the 2nd fraction to its reciprocal
3. Multiply the 2 fractions
4. If possible, simplify the answer & change improper fractions to mixed numbers

ex: $12 \div \frac{1}{2}$

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

$$\frac{12}{1} \times \frac{2}{1} = \frac{24}{1} = \boxed{24}$$

Find each sum or difference. Show your work.

67. $\frac{7}{8} + \frac{5}{6}$

68. $\frac{9}{10} - \frac{1}{2}$

69. $\frac{3}{11} + \frac{2}{3}$

70. $\frac{11}{12} - \frac{13}{18}$

71. $4\frac{5}{9} + 7\frac{1}{3}$

72. $12\frac{9}{14} - 9\frac{3}{7}$

73. $3\frac{3}{5} + 2\frac{3}{4}$

74. $2\frac{2}{15} - 1\frac{2}{3}$

Find each product or quotient. Show your work.

75. $\frac{1}{6} \times \frac{3}{4}$

76. $6 \div \frac{1}{3}$

77. $15 \times \frac{2}{3}$

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

79. $\frac{1}{6} \times 10$

80. $\frac{1}{4} \div 2$

81. $\frac{5}{9} \times \frac{3}{20}$

82. $4 \div \frac{1}{5}$

Solve each problem, showing all work.

83. Jacqui ran $1\frac{1}{2}$ miles on Monday, Wednesday, and Friday and $\frac{3}{4}$ mile on Tuesday and Thursday. How far did she run in all?

84. Tyrell gave 3 packs of baseball cards to his friends. He gave each friend $\frac{1}{3}$ of a pack. How many friends got baseball cards?