

5-1 Multiplying Fractions (Page 212)**When multiplying fractions:**

1. Multiply numerator by numerator
2. Multiply denominator by denominator
3. Simplify answer = reduce to lowest terms or convert improper fractions to mixed numbers

Ex # 1) $\frac{1}{3} \cdot \frac{3}{5}$

Ex # 2) $\frac{6}{7} \cdot \frac{2}{3}$

Ex # 3) $\frac{3}{8} \cdot \frac{2}{9}$

To get your answer to lowest terms right away = SIMPLIFY BEFORE YOUR MULTIPLY

- You can divide diagonally by the GCF to get both fractions into smaller form

Ex # 1) $\frac{1}{3} \cdot \frac{3}{5}$

Ex # 2) $\frac{6}{7} \cdot \frac{2}{3}$

Ex # 3) $\frac{3}{8} \cdot \frac{2}{9}$

5-2 Multiplying Mixed Numbers (Page 216)**When multiplying mixed numbers:**

1. Convert mixed numbers to improper fractions
2. Simplify before you multiply if you want (optional)
3. Multiply numerators by numerators
4. Multiply denominators by denominators
5. Simplify answer = reduce to lowest terms or convert improper fractions to mixed numbers

Ex # 1) $\frac{1}{3} \cdot 1\frac{1}{2}$

Ex # 2) $1\frac{1}{5} \cdot \frac{2}{3}$

Ex # 3) $\frac{3}{4} \cdot 2\frac{1}{3}$

5-3 Dividing Fractions and Mixed Numbers (Page 222)**When dividing fractions or mixed numbers:**

1. Convert mixed numbers to improper fractions
- 2. Flip the second fraction (reciprocal) and change the sign to multiplication**
3. Simplify before you multiply if you want (optional)
4. Multiply numerator by numerator
5. Multiply denominator by denominator
6. Simplify answer = reduce to lowest terms or convert improper fractions to mixed numbers

Ex # 1) $\frac{4}{5} \div 5$

Ex # 2) $\frac{3}{4} \div \frac{1}{2}$

Ex # 3) $2\frac{2}{3} \div 1\frac{1}{6}$

5-4 Solving Fraction Equations with Multiplication and Division (Page 226)**When solving fraction equations: Perform the inverse operation**

Ex # 1) $\frac{2}{3}x = 14$

Ex # 2) $2X = \frac{1}{3}$

Ex # 3) $\frac{5}{6}X = 4$

5-5 Least Common Multiple (Page 232)**When the finding the LCM (least common multiple):**

Make a list and list 5 for each. If you do not find a match, keep going on one or both numbers

Ex # 1) Find the LCM of 6 & 9

$$6 =$$

$$9 =$$

Ex # 2) Find the LCM of 8 & 12

$$8 =$$

$$12 =$$

Ex #3) Find the LCM of 6 & 10

$$6 =$$

$$10 =$$

5-6 Estimating Fraction Sums and Differences (Page 236)

When estimating fraction sums and differences: Be sure to round to 0, $\frac{1}{2}$, or 1

$$\text{Ex \# 1) } \frac{8}{9} + \frac{2}{11}$$

$$\text{Ex \# 2) } \frac{7}{12} - \frac{8}{15}$$

$$\text{Ex \# 3) } \frac{11}{12} - \frac{4}{9}$$

5-7 Adding and Subtracting Fractions with Unlike Denominators (Page 242)**When adding or subtracting fractions with unlike denominators:**

1. Write problem vertically
2. Find a common denominator (Least common multiple of the denominators)
3. Find the missing number
4. Add or subtract the numerator
5. Simplify or reduce your answer to lowest terms.

Ex # 1) $\frac{1}{3} + \frac{1}{5}$

Ex # 2) $\frac{9}{10} - \frac{7}{8}$

Ex # 3) $\frac{5}{12} + \frac{1}{6}$

5-8 Adding and Subtracting Mixed Numbers (Page 246)**When adding or subtracting mixed numbers:****(REMEMBER FRACTION FIRST WHOLE NUMBER SECOND)**

1. Write problem vertically
2. Find a common denominator (Least common multiple of the denominators)
3. Find the missing number
4. Add or subtract numerators
5. Add or subtract whole numbers
6. Simplify or reduce answer

Ex # 1) $2\frac{3}{4} + 1\frac{1}{6}$

Ex # 2) $4\frac{5}{6} - 2\frac{2}{9}$

Ex # 3) $2\frac{2}{3} + 1\frac{3}{4}$

5-9 Renaming to Subtract Mixed Numbers (Page 252)

When subtracting mixed numbers and having to borrow:

1. Write problem vertically
2. Find a common denominator
3. Borrow from whole number
4. Add the fraction you borrow to what you already have
5. Now subtract the numerators
6. Simplify or reduce your answer

$$\text{Ex \# 1) } 6 \frac{5}{12} - 2 \frac{7}{12}$$

$$\begin{array}{r}
 5 \cancel{6} \frac{5}{12} \quad \frac{12}{12} \quad \frac{17}{12} \\
 - 2 \frac{7}{12} \quad \frac{7}{12} \\
 \hline
 3 \quad \frac{10}{12} = 3 \frac{5}{6}
 \end{array}$$

$$\text{Ex \# 1) } 2 \frac{3}{4} + 1 \frac{1}{6}$$

$$\text{Ex \# 2) } 4 \frac{5}{6} - 2 \frac{2}{9}$$

$$\text{Ex \# 3) } 2 \frac{2}{3} + 1 \frac{3}{4}$$

5-10 Solving Fraction Equations with Addition and Subtraction (Page 256)**When solving fraction equations: Perform the inverse operation**

Ex # 1) $X + 6\frac{2}{3} = 11$

Ex # 2) $2\frac{1}{4} = X - 3\frac{1}{2}$

Ex # 3) $X + \frac{7}{10} = 5\frac{3}{5}$