Practice Practice Practice
Simplifying Fractions

$$\frac{6}{30}$$

1. List Factors
   6: 6,1,2,3
   30: 30,1,15,2,10,3,5,6
2. Numerical Order:
   6: 1, 2, 3, 6
   30: 1, 2, 3, 5, 6, 10, 15, 30
3. Identify the common factors
   6: 1, 2, 3, 6
   30: 1, 2, 3, 5, 6, 10, 15, 30
4. Select the largest common factor
   6
5. This is the GCF (Greatest Common Factor)
6. Divide the Numerator and Denominator by the GCF

$$\frac{6}{30} \div \frac{6}{6} = \frac{1}{5}$$

Simplify :

1. $\frac{36}{45}$
2. $\frac{9}{24}$
3. $\frac{18}{72}$
4. $\frac{7}{14}$
5. $\frac{15}{36}$
6. $\frac{8}{12}$
7. $\frac{9}{21}$
8. $\frac{6}{12}$

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Simplifying Fractions

Simplify Answers:

1. $\frac{36}{45}$

GCF: 9

$\frac{4}{5}$

2. $\frac{9}{24}$

GCF: 3

$\frac{3}{8}$

3. $\frac{18}{72}$

GCF: 9

$\frac{2}{8}$

4. $\frac{7}{14}$

GCF: 7

$\frac{1}{2}$

5. $\frac{15}{36}$

GCF: 3

$\frac{5}{12}$

6. $\frac{8}{12}$

GCF: 4

$\frac{2}{3}$

7. $\frac{9}{21}$

GCF: 3

$\frac{3}{7}$

8. $\frac{6}{12}$

GCF: 6

$\frac{1}{2}$

Practice Practice Practice
Adding Fractions I

$$\frac{1}{5} + \frac{7}{10} =$$

$$\frac{3}{7} + \frac{3}{8} =$$

$$\frac{4}{15} + \frac{3}{10} =$$

$$\frac{4}{9} + \frac{5}{12} =$$

Steps:
1. Find a common denominator (LCD or LCM- Least Common Denominator or Least Common Multiple)
2. Convert each fraction into their equivalent fraction with the LCM as the denominator
3. Add the numerators, the denominators stay the same
4. Simplify the answer
    -Do they have factors in common?
    -If yes find the GCF (Greatest Common Factor)
    -Divide the numerator and denominator by the GCF

Practice Practice Practice
Adding Fractions I

$\frac{1}{5} + \frac{7}{10} =$ LCD 10 $\frac{2}{10} + \frac{7}{10} = \frac{9}{10}$

$\frac{3}{7} + \frac{3}{8} =$ LCD 56 $\frac{24}{56} + \frac{21}{56} = \frac{45}{56}$

$\frac{4}{15} + \frac{3}{10} =$ LCD 30 $\frac{8}{30} + \frac{9}{30} = \frac{17}{56}$

$\frac{4}{9} + \frac{5}{12} =$ LCD 36 $\frac{16}{36} + \frac{15}{36} = \frac{31}{56}$

Steps:
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2. Convert each fraction into their equivalent fraction with the LCM as the denominator
3. Add the numerators, the denominators stay the same
4. Simplify the answer
   -Do they have factors in common?
   -If yes find the GCF (Greatest Common Factor)
   -Divide the numerator and denominator by the GCF

PRACTICE MAKES GENIUS

Practice Practice Practice
Adding Fractions II

$$\frac{2}{3} + \frac{5}{7} =$$

$$\frac{2}{5} + \frac{3}{8} =$$

$$\frac{1}{9} + \frac{2}{3} =$$

$$\frac{4}{9} + \frac{2}{6} =$$

Steps:
1. Find a common denominator (LCD or LCM- Least Common Denominator or Least Common Multiple)
2. Convert each fraction into their equivalent fraction with the LCM as the denominator
3. Add the numerators, the denominators stay the same
4. Simplify the answer
    -Do they have factors in common?
    -If yes find the GCF (Greatest Common Factor)
    -Divide the numerator and denominator by the GCF

Practice Practice Practice
Adding Fractions II

$$\frac{2}{3} + \frac{5}{7} = \text{LCD } 21 \quad \frac{14}{21} + \frac{15}{21} = \frac{29}{21} = 1\frac{8}{21}$$

$$\frac{2}{5} + \frac{3}{8} = \text{LCD } 40 \quad \frac{16}{40} + \frac{15}{40} = \frac{31}{40}$$

$$\frac{1}{9} + \frac{2}{3} = \text{LCD } 9 \quad \frac{1}{9} + \frac{6}{9} = \frac{7}{9}$$

$$\frac{4}{9} + \frac{2}{6} = \text{LCD } 18 \quad \frac{8}{18} + \frac{6}{18} = \frac{14}{18} = \frac{7}{9}$$

Steps:
1. Find a common denominator (LCD or LCM- Least Common Denominator or Least Common Multiple)
2. Convert each fraction into their equivalent fraction with the LCM as the denominator
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4. Simplify the answer
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   -Divide the numerator and denominator by the GCF

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Practice Practice Practice
Subtracting Fractions I

$$\frac{8}{9} - \frac{5}{6} =$$

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

$$\frac{1}{4} - \frac{1}{8} =$$

$$\frac{4}{9} + \frac{2}{6} =$$

Steps:
1. Find a common denominator (LCD or LCM- Least Common Denominator or Least Common Multiple)
2. Convert each fraction into their equivalent fraction with the LCM as the denominator
3. Add the numerators, the denominators stay the same
4. Simplify the answer
    -Do they have factors in common?
    -If yes find the GCF (Greatest Common Factor)
    -Divide the numerator and denominator by the GCF

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Practice Practice Practice
Subtracting Fractions I

$$\frac{8}{9} - \frac{5}{6} = \text{LCD } 18 \quad \frac{16}{18} - \frac{15}{18} = \frac{1}{18}$$

$$\frac{1}{2} - \frac{2}{5} = \text{LCD } 10 \quad \frac{5}{10} - \frac{4}{10} = \frac{1}{10}$$

$$\frac{1}{4} - \frac{1}{8} = \text{LCD } 8 \quad \frac{2}{8} - \frac{1}{8} = \frac{1}{8}$$

$$\frac{4}{9} - \frac{1}{8} = \text{LCD } 72 \quad \frac{32}{72} - \frac{9}{72} = \frac{23}{72}$$

Steps:
1. Find a common denominator (LCD or LCM- Least Common Denominator or Least Common Multiple)
2. Convert each fraction into their equivalent fraction with the LCM as the denominator
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4. Simplify the answer
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