

## Fractions

This lesson is for 3-5 class periods

### Day 1

Present examples of the concept that fraction are less than the whole

As well as Vocabulary: Numerator, Denominator, part/ whole.

Explain and practice converting mixed numbers/ improper fractions

Practice reducing fractions to lowest form

### Day 2

Teach adding fractions with the same and a different denominator

Stress the importance of having the same denominator when adding fractions

Use handout to practice adding fractions with the same denominator and with different denominators.

### Day 3

Teach: subtraction of fractions with the same and different denominators.

Practice whole group.

Use the bottom of the yesterday's addition handout to do problems subtracting fractions with the same and different denominators.

### Day 4

Mixed numbers adding and subtracting with the same and different denominators

As well as with borrowing.

Use the mixed practice handout

Day 5

Review and practice all fractions problems especially subtracting mixed numbers with borrowing: Use Number Power 2 pg. 33, 35, 36

Teach: Multiplying and dividing Fractions

Practice Pgs. 40-59

Give the Sam's Fraction test Level D

<b>4.0</b>	Students will create and solve correctly their own addition, subtraction, multiplication or division of fractions problems.
<b>3.0</b>	Students will be able to perform all of the operations for addition, subtraction, multiplication, and division of fractions including mixed and improper fractions, as well as simplifying to lowest terms
<b>2.0</b>	Students will be able to perform the steps of addition and subtraction of fractions with the same and different denominators.
<b>1.0</b>	Students will be solve addition and subtraction of fractions with the same denominator. They will recognize vocabulary words used when solving fractions (numerator, denominator, part/whole, mixed number, improper fraction, simplifying).

# Fraction Practice

## Add (Same denominator)

$$\begin{array}{r} 1. \quad \frac{3}{6} \\ + \frac{2}{6} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{4} \\ + \frac{2}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{4}{7} \\ + \frac{2}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{9} \\ + \frac{2}{9} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \frac{4}{12} \\ + \frac{3}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{9} \\ + \frac{3}{9} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{1}{8} \\ + \frac{4}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{5} \\ + \frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{10} \\ + \frac{2}{10} \\ \hline \end{array}$$

## Add (Different denominator)

Add and reduce.

$$\begin{array}{r} 1. \quad \frac{3}{5} \\ + \frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{4} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{5} \\ + \frac{1}{2} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{7} \\ + \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{6} \\ + \frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \frac{4}{7} \\ + \frac{2}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{6} \\ + \frac{4}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{8} \\ + \frac{5}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{3} \\ + \frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{9} \\ + \frac{3}{4} \\ \hline \end{array}$$

## Subtract (Same Denominator)

$$\begin{array}{r} 5. \quad \frac{5}{7} \\ - \frac{3}{7} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{3} \\ - \frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{9} \\ - \frac{4}{9} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{10}{11} \\ - \frac{5}{11} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{7}{10} \\ - \frac{6}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad \frac{7}{9} \\ - \frac{3}{9} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{5}{8} \\ - \frac{2}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{9}{11} \\ - \frac{5}{11} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{11}{12} \\ - \frac{4}{12} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{3}{7} \\ - \frac{1}{7} \\ \hline \end{array}$$

# Fraction Practice

# KEY

## Add (Same denominator)

1.	$\frac{3}{6}$	$\frac{5}{8}$	$\frac{1}{4}$	$\frac{4}{7}$	$\frac{5}{9}$
	$+\frac{2}{6}$	$+\frac{2}{8}$	$+\frac{2}{4}$	$+\frac{2}{7}$	$+\frac{2}{9}$
	$\frac{5}{6}$	$\frac{7}{8}$	$\frac{3}{4}$	$\frac{6}{7}$	$\frac{7}{9}$
2.	$\frac{4}{12}$	$\frac{1}{9}$	$\frac{1}{8}$	$\frac{3}{5}$	$\frac{5}{10}$
	$+\frac{3}{12}$	$+\frac{3}{9}$	$+\frac{4}{8}$	$+\frac{1}{5}$	$+\frac{2}{10}$
	$\frac{7}{12}$	$\frac{4}{9}$	$\frac{5}{8}$	$\frac{4}{5}$	$\frac{7}{10}$

## Add (Different denominator)

Add and reduce.

1.	$\frac{3}{5} = \frac{6}{10}$	$\frac{3}{4} \times 3 = \frac{9}{12}$	$\frac{2}{5} \times 2 = \frac{4}{10}$	$\frac{3}{7} \times 3 = \frac{9}{21}$	$\frac{5}{6} \times 5 = \frac{25}{30}$
	$+\frac{2}{3} \times 5 = \frac{10}{15}$	$+\frac{1}{3} \times 4 = \frac{4}{12}$	$+\frac{1}{2} \times 5 = \frac{5}{10}$	$+\frac{1}{3} \times 7 = \frac{7}{21}$	$+\frac{2}{5} \times 6 = \frac{12}{30}$
	$\frac{17}{15} = 1\frac{2}{15}$	$\frac{13}{12} = 1\frac{1}{12}$	$\frac{9}{10}$	$\frac{16}{21}$	$\frac{37}{30} = 1\frac{7}{30}$
2.	$\frac{4}{7}$	$\frac{5}{6} \times 5 = \frac{25}{30}$	$\frac{3}{8}$	$\frac{2}{3} \times 5 = \frac{10}{15}$	$\frac{5}{9} \times 4 = \frac{20}{36}$
	$+\frac{2}{7}$	$+\frac{4}{5} \times 6 = \frac{24}{30}$	$+\frac{5}{8}$	$+\frac{3}{5} \times 3 = \frac{9}{15}$	$+\frac{3}{4} \times 9 = \frac{27}{36}$
	$\frac{6}{7}$	$\frac{49}{30} = 1\frac{19}{30}$	$\frac{5}{8} = 1$	$\frac{19}{15} = 1\frac{4}{15}$	$\frac{47}{36} = 1\frac{11}{36}$

## Subtract

5.	$\frac{5}{7}$	$\frac{2}{3}$	$\frac{5}{9}$	$\frac{10}{11}$	$\frac{7}{10}$
	$-\frac{3}{7}$	$-\frac{1}{3}$	$-\frac{4}{9}$	$-\frac{5}{11}$	$-\frac{6}{10}$
	$\frac{2}{7}$	$\frac{1}{3}$	$\frac{1}{9}$	$\frac{5}{11}$	$\frac{1}{10}$
6.	$\frac{7}{9}$	$\frac{5}{8}$	$\frac{9}{11}$	$\frac{11}{12}$	$\frac{3}{7}$
	$-\frac{3}{9}$	$-\frac{2}{8}$	$-\frac{5}{11}$	$-\frac{4}{12}$	$-\frac{1}{7}$
	$\frac{4}{9}$	$\frac{3}{8}$	$\frac{4}{11}$	$\frac{7}{12}$	$\frac{2}{7}$

## Mixed Practice

$$1) \frac{3}{4} + \frac{1}{2} =$$

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

$$3) \frac{5}{9} - \frac{1}{6} =$$

$$4) 8\frac{11}{12} - 2\frac{3}{8} =$$

$$5) 5\frac{7}{8} - 4\frac{5}{9} =$$

$$6) 3\frac{7}{8} + 11\frac{3}{5} =$$

$$7) \frac{23}{24} - \frac{11}{24} =$$

$$8) \frac{3}{4} + \frac{1}{3} =$$

$$9) 8\frac{2}{9} - 4\frac{5}{9} =$$

$$10) 15\frac{1}{6} - 3\frac{2}{3} =$$

# Mixed Practice

KEY

$$1) \frac{3}{4} + \frac{1}{2} = \frac{3}{4} + \frac{2}{4} = \frac{5}{4} = \underline{\underline{1\frac{1}{4}}}$$

$$2) \frac{3}{4} - \frac{1}{2} = \frac{3}{4} - \frac{2}{4} = \underline{\underline{\frac{1}{4}}}$$

$$3) \frac{5}{9} - \frac{1}{6} = \frac{10}{18} - \frac{3}{18} = \underline{\underline{\frac{7}{18}}}$$

$$4) 8\frac{11}{12} - 2\frac{3}{8} = 8\frac{22}{24} - 2\frac{9}{24} = \underline{\underline{6\frac{13}{24}}}$$

$$5) 5\frac{7}{8} - 4\frac{5}{9} = 5\frac{63}{72} - 4\frac{40}{72} = \underline{\underline{1\frac{23}{72}}}$$

$$6) 3\frac{7}{8} + 11\frac{3}{5} = 3\frac{35}{40} + 11\frac{24}{40} = 14\frac{59}{40} = \underline{\underline{15\frac{19}{40}}}$$

$$7) \frac{23}{24} - \frac{11}{24} = \frac{12 \div 12}{24 \div 12} = \underline{\underline{\frac{1}{2}}}$$

$$8) \frac{3}{4} + \frac{1}{3} = \frac{9}{12} + \frac{4}{12} = \frac{13}{12} = \underline{\underline{1\frac{1}{12}}}$$

$$9) 8\frac{2}{9} - 4\frac{5}{9} = \frac{74}{9} - \frac{41}{9} = \frac{33}{9} = 3\frac{6 \div 3}{9 \div 3} = \underline{\underline{3\frac{2}{3}}}$$

$$10) 15\frac{1}{6} - 3\frac{2}{3} = 15\frac{1}{6} - 3\frac{4}{6} = \frac{91}{6} - \frac{22}{6} = \frac{69}{6}$$

$$= 11\frac{3 \div 3}{6 \div 3} = \underline{\underline{11\frac{1}{2}}}$$