

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

**Grade 5: Lesson #6 Subtracting Fractions with Unlike Denominators using Bar Models**

**Draw a bar model to show the equivalent fractions and use the models to find the answers.**

*Remember: In our lesson Paul was buying different sized bolts. A bolt needs a nut that fits on the other end of the bolt so it can hold things together. Paul's friend Solange is buying the nuts for their project. This problem is very similar to the problem we did together.*

1. Solange has a nut that is  $\frac{5}{8}$  inch wide. She buys a nut that is  $\frac{1}{4}$  inch wider and a nut that is  $\frac{1}{4}$  inch narrower than the  $\frac{5}{8}$  inch nut. What are the widths of the two nuts she buys?

**For each of the following:**

- **Write out the multiples of each fraction's denominator and circle the common multiple. This will be the common denominator.**
- **Draw a fraction bar model for each fraction to show the equivalent fractions using that common denominator.**
- **Then subtract.**

2.  $\frac{7}{8} - \frac{1}{2}$       Multiples of 8: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_      Answer: \_\_\_\_\_  
Multiples of 2: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Models:

3.  $\frac{5}{6} - \frac{1}{4}$       Multiples of 6: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_      Answer: \_\_\_\_\_  
Multiples of 4: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Models:

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

**Grade 5: Lesson #7 Subtracting Fractions with Unlike Denominators**

For #1, find the common denominator and use the number line method to find equivalent fractions and solve.

**1. Emily's shelf is  $\frac{3}{4}$  foot wide. Her clock is  $\frac{2}{3}$  foot wide. How much wider is her shelf than her clock?**

Multiples:

Common denominator: \_\_\_\_\_

Work to find equivalent fractions and solve:

Answer: \_\_\_\_\_

For #2-3, show how you found the common denominator and the work for either the bar method or the number line method you used to find equivalent fractions and to subtract.

**2. What is  $\frac{9}{10} - \frac{3}{5}$  ?**

Multiples:

Common denominator: \_\_\_\_\_

Work to find equivalent fractions and solve:

Answer: \_\_\_\_\_

**3. What is  $\frac{7}{8} - \frac{1}{6}$  ?**

Multiples:

Common denominator: \_\_\_\_\_

Work to find equivalent fractions and solve:

Answer: \_\_\_\_\_

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

**Grade 5: Lesson #8 Subtracting Mixed Numbers**

**Subtract. Show your work for each problem.**

*Remember: In our lesson, we modeled the mixed numbers using fraction bars, subdivided the models using a common denominator, and regrouped an addend if necessary.*

1.  $2\frac{1}{8} - \frac{1}{4}$

2.  $2\frac{1}{8} - \frac{1}{2}$

3.  $2\frac{1}{8} - \frac{3}{4}$

4.  $7\frac{2}{5} - 3\frac{1}{2}$

5.  $5\frac{3}{8} - 4\frac{1}{6}$

6. What patterns did you notice in problems 1 through 3? Explain how this helped you subtract.

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

**Grade 5: Lesson 9 Subtracting Mixed Numbers with Unlike Denominators**

For #1, find the common denominator and use the number line method to find equivalent fractions and solve.

**1. Carter's sister is  $17\frac{1}{3}$  years old. Carter is  $2\frac{1}{2}$  years younger than his sister. What is Carter's age in years?**

Multiples:

Common Denominator: \_\_\_\_\_

Show work for finding equivalent fractions and solve.

Answer: \_\_\_\_\_

For #2-3, show how you found the common denominator and the work for either the bar method or the number line method you used to find equivalent fractions and to subtract.

**2. Mackenzie's footprint is  $\frac{7}{12}$  foot long. Her dad's footprint is  $1\frac{1}{6}$  feet long. How much longer is Mackenzie's dad's footprint than Mackenzie's?**

Multiples:

Common Denominator: \_\_\_\_\_

Work for finding equivalent fractions and solve.

Answer: \_\_\_\_\_

**3. The sum of  $4\frac{1}{2}$  and what number is  $2\frac{5}{7}$ ?**

Multiples:

Common Denominator: \_\_\_\_\_

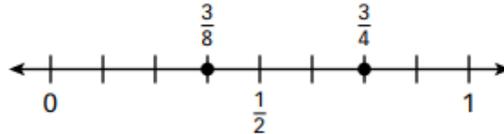
Work for finding equivalent fractions and solve.

Answer: \_\_\_\_\_

Name: \_\_\_\_\_ Teacher: \_\_\_\_\_ School: \_\_\_\_\_

**Grade 5: Lesson 10 Use Benchmark Fractions to Add and Subtract Fractions in Word Problems**

1. Ricci and his brother Lorenzo both have practice for an upcoming karate tournament. Ricci practices for  $\frac{3}{8}$  of an hour and Lorenzo practices for  $\frac{3}{4}$  of an hour. Which brother practices for a longer time? Compare both numbers to the benchmark fraction  $\frac{1}{2}$ .



2. Use the number line from problem #1 to compare each fraction to  $\frac{1}{2}$ . Write each fraction in the correct box.

$\frac{6}{8}$     $\frac{3}{4}$     $\frac{1}{4}$     $\frac{5}{8}$     $\frac{2}{4}$     $\frac{7}{8}$     $\frac{2}{8}$

Less than $\frac{1}{2}$	Equal to $\frac{1}{2}$	Greater than $\frac{1}{2}$

3. You can also use the number 1 as a benchmark. Use the fractions in the box. Write each fraction that is:

a. Greater than 1 \_\_\_\_\_

b. Less than 1 \_\_\_\_\_

c. Equal to 1 \_\_\_\_\_

$\frac{1}{3}$	$\frac{4}{3}$	$\frac{12}{15}$
$\frac{3}{10}$	$\frac{7}{5}$	
$\frac{3}{3}$	$\frac{2}{5}$	$\frac{16}{10}$