

**Objectives:**

- Students will memorize the multiplication table, as evidenced by them passing “minute quizzes.”
- Students will add and subtract fractions with common denominators, as evidenced by them completing a warm-up worksheet where they do so.
- Students will use fraction circles to add fractions with differing denominators, where the least common denominator is one of the denominators, as evidenced by them completing a homework assignment where they do so.

**Student Materials on Desk Corner:**

- Homework #2-23
- Homework Checker
- Readiness Checker

**Student Materials for Class:**

- Homework Log
- Binder Paper
- Pencils

**Teacher Materials:**

- “Warm-up 2-24” for each student
- “Minute Quiz 2-24” for each student
- “Homework #2-23” answer key and grading roster for TA
- “Homework #2-24” handout for each student

**Homework:**

- Finish Homework #2-24
- ALEKS

Time	Activity
10 min	<p style="text-align: center;"><b>MINUTE QUIZ, WARM-UP, HOMEWORK COLLECTION, AND ATTENDANCE</b></p> <p><b>Minute Quiz and Warm-up</b> When the bell rings, quickly go around and put the <b>minute quiz</b> on each student’s desk, facedown. Then, start everyone on the quiz at the same time and give everyone one minute. While students are working on the quiz, pass out the <b>warm-ups</b> so that students can work on them once they’re done with the minute quiz. Also, stamp the <b>readiness checkers</b> of students who were ready when the bell rang and had their readiness checkers out.</p> <p><b>Homework Collection and Attendance</b> Instruct the TA go around and collect <b>homework</b> and stamp <b>homework checkers</b>. Give the TA the answer key and have him or her grade the homework that was collected. During this time, take <b>attendance</b>.</p> <p><b>Warm-up &amp; Notes Checker</b> Once all the homework is collected, go around and stamp the students’ “Warm-up and Notes Checkers.”</p>
20 min	<p style="text-align: center;"><b>LESSON: ADDING DIFFERING DENOMINATORS</b></p> <p><b>Notes</b> Follow the handwritten Cornell Notes. Once students are finished, go around and stamp the students’ “Warm-up and Notes Checkers.”</p>
20 min	<p style="text-align: center;"><b>CLASSWORK</b></p> <p>Pass out the <b>homework/classwork</b> handout and have students write down the assignment on their homework logs. Have the TA pass out <b>fraction circles</b> and write own which student has which set of fraction circles. Students should use the fraction circles to complete Homework #2-24, which will serve as the classwork.</p>
30 min	<p style="text-align: center;"><b>ALEKS</b></p> <p>When students finish their classwork, they should continue with <b>ALEKS</b>. Use this student work time to <b>return graded homework</b>.</p>

**Solve the following multiplication problems. You have exactly one minute!**

$4 \cdot 4 =$

$2 \cdot 12 =$

$6 \cdot 2 =$

$8 \cdot 3 =$

$8 \cdot 9 =$

$2 \cdot 2 =$

$3 \cdot 7 =$

$12 \cdot 8 =$

$5 \cdot 6 =$

$6 \cdot 10 =$

$2 \cdot 3 =$

$2 \cdot 10 =$

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$3 \cdot 7 =$

$12 \cdot 8 =$

$5 \cdot 6 =$

$6 \cdot 10 =$

$2 \cdot 3 =$

$2 \cdot 10 =$

**Solve the following multiplication problems. You have exactly one minute!**

$7 \cdot 12 =$

$12 \cdot 11 =$

$5 \cdot 8 =$

$7 \cdot 1 =$

$1 \cdot 7 =$

$11 \cdot 8 =$

$3 \cdot 2 =$

$2 \cdot 2 =$

$8 \cdot 10 =$

$5 \cdot 2 =$

$2 \cdot 10 =$

$4 \cdot 4 =$

**Solve the following multiplication problems. You have exactly one minute!**

$7 \cdot 12 =$

$12 \cdot 11 =$

$5 \cdot 8 =$

$7 \cdot 1 =$

$1 \cdot 7 =$

$11 \cdot 8 =$

$3 \cdot 2 =$

$2 \cdot 2 =$

$8 \cdot 10 =$

$5 \cdot 2 =$

$2 \cdot 10 =$

$4 \cdot 4 =$

**Solve the following multiplication problems. You have exactly one minute!**

$7 \cdot 12 =$

$12 \cdot 11 =$

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$7 \cdot 1 =$

$1 \cdot 7 =$

$11 \cdot 8 =$

$3 \cdot 2 =$

$2 \cdot 2 =$

$8 \cdot 10 =$

$5 \cdot 2 =$

$2 \cdot 10 =$

$4 \cdot 4 =$

**Solve the following multiplication problems. You have exactly one minute!**

$9 \cdot 9 =$	$11 \cdot 6 =$	$11 \cdot 8 =$
$3 \cdot 3 =$	$2 \cdot 4 =$	$2 \cdot 8 =$
$3 \cdot 11 =$	$1 \cdot 12 =$	$9 \cdot 7 =$
$12 \cdot 4 =$	$3 \cdot 7 =$	$6 \cdot 6 =$

**Solve the following multiplication problems. You have exactly one minute!**

$9 \cdot 9 =$	$11 \cdot 6 =$	$11 \cdot 8 =$
$3 \cdot 3 =$	$2 \cdot 4 =$	$2 \cdot 8 =$
$3 \cdot 11 =$	$1 \cdot 12 =$	$9 \cdot 7 =$
$12 \cdot 4 =$	$3 \cdot 7 =$	$6 \cdot 6 =$

**Solve the following multiplication problems. You have exactly one minute!**

$9 \cdot 9 =$	$11 \cdot 6 =$	$11 \cdot 8 =$
$3 \cdot 3 =$	$2 \cdot 4 =$	$2 \cdot 8 =$
$3 \cdot 11 =$	$1 \cdot 12 =$	$9 \cdot 7 =$
$12 \cdot 4 =$	$3 \cdot 7 =$	$6 \cdot 6 =$

**Add/subtract the following fractions. Notice they have common denominators.**

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

2)  $\frac{5}{10} + \frac{4}{10}$

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

4)  $\frac{1}{6} + \frac{2}{6}$

5)  $\frac{5}{12} + \frac{6}{12}$

6)  $\frac{1}{3} + \frac{1}{3}$

7)  $\frac{3}{4} - \frac{2}{4}$

8)  $\frac{8}{12} - \frac{7}{12}$

9)  $\frac{6}{6} - \frac{1}{6}$

10)  $\frac{2}{3} - \frac{1}{3}$

11)  $\frac{4}{5} - \frac{3}{5}$

12)  $\frac{5}{10} - \frac{2}{10}$

**Add/subtract the following fractions. Notice they have common denominators.**

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

2)  $\frac{5}{10} + \frac{4}{10}$

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

4)  $\frac{1}{6} + \frac{2}{6}$

5)  $\frac{5}{12} + \frac{6}{12}$

6)  $\frac{1}{3} + \frac{1}{3}$

7)  $\frac{3}{4} - \frac{2}{4}$

8)  $\frac{8}{12} - \frac{7}{12}$

9)  $\frac{6}{6} - \frac{1}{6}$

10)  $\frac{2}{3} - \frac{1}{3}$

11)  $\frac{4}{5} - \frac{3}{5}$

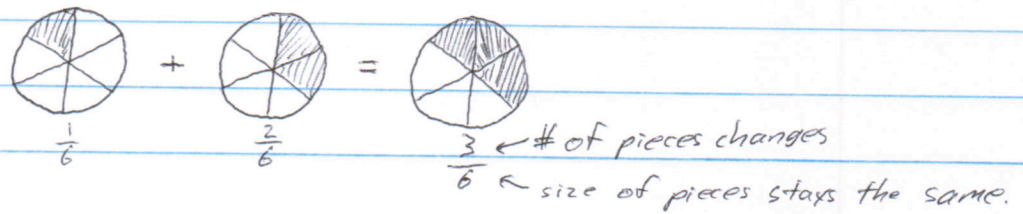
12)  $\frac{5}{10} - \frac{2}{10}$

## Adding Differing Denominators

### Section → Introduction

used fraction circles to show  
 Last time, we ~~learned~~ that adding across is bad.  
 We also learned how to correctly add fractions with common denominators.

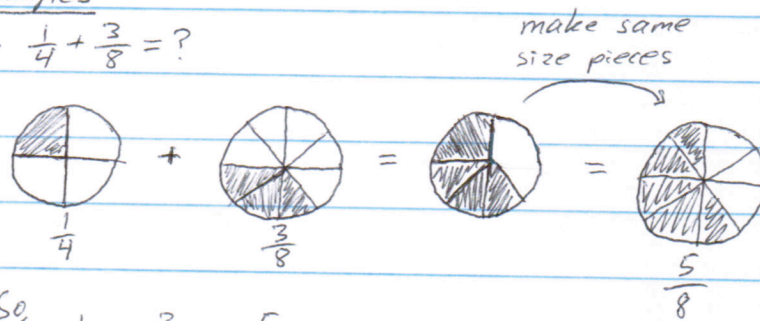
Ex:  $\frac{1}{6} + \frac{2}{6} = ?$



Today, we will use fraction circles to add fractions with differing denominators.

### Section → Examples

Ex:  $\frac{1}{4} + \frac{3}{8} = ?$



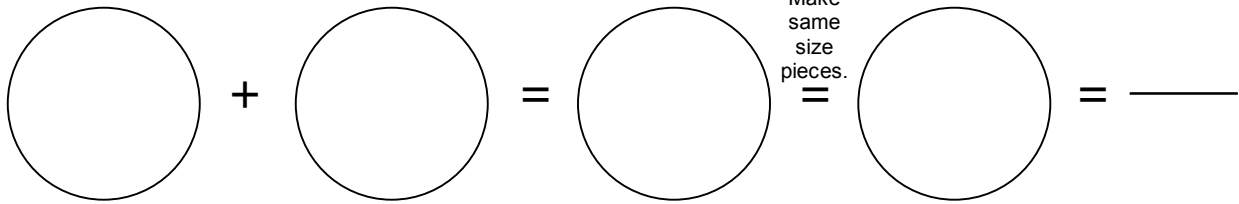
So,  $\frac{1}{4} + \frac{3}{8} = \frac{5}{8}$

Ex:  $\frac{2}{3} + \frac{1}{6} = ?$       (Answer:  $\frac{5}{6}$ )

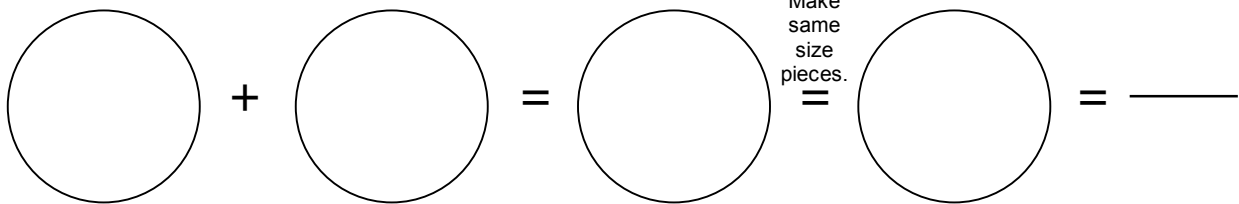
Ex:  $\frac{3}{10} + \frac{1}{2} = ?$       (Answer:  $\frac{4}{5}$ )

Evaluate each addition problem using fraction circles. Draw the fraction circles in the spaces provided, and be simplify your answers.

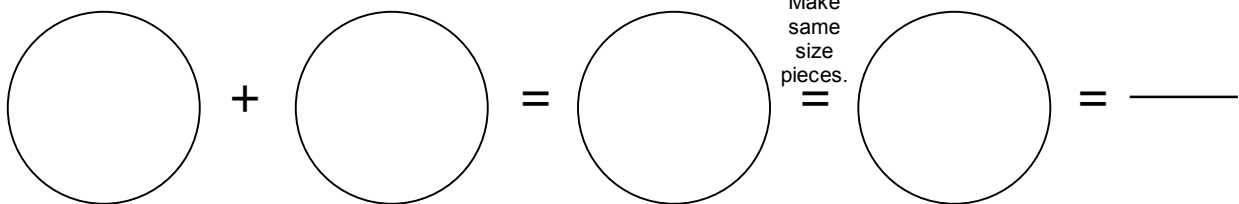
1)  $\frac{3}{4} + \frac{1}{8}$



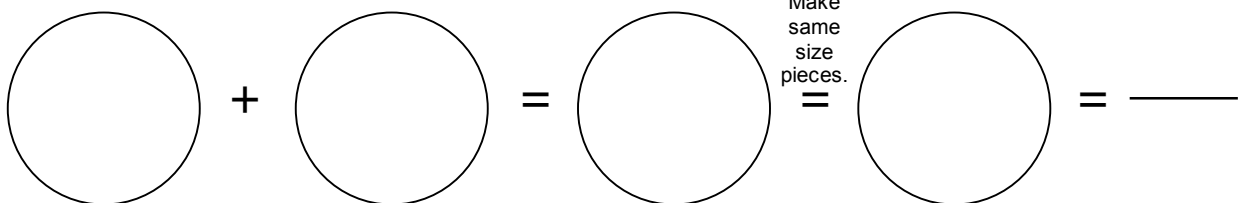
2)  $\frac{1}{2} + \frac{1}{4}$



3)  $\frac{2}{5} + \frac{3}{10}$



4)  $\frac{5}{12} + \frac{1}{6}$



5)  $\frac{1}{2} + \frac{2}{6}$

