

Many everyday problems require knowledge of adding and subtracting mixed numbers, from shopping for shoes, to baking cookies, to investing in stocks, and so forth.

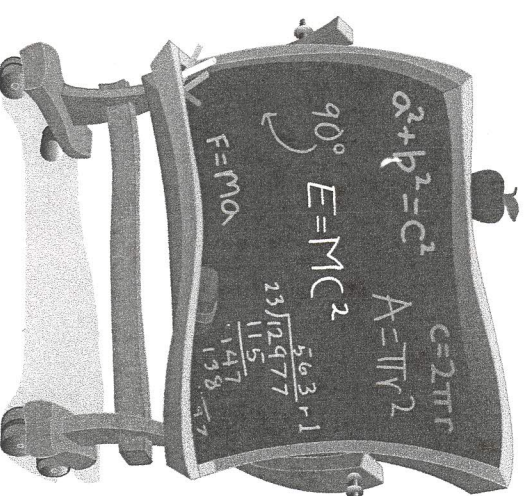
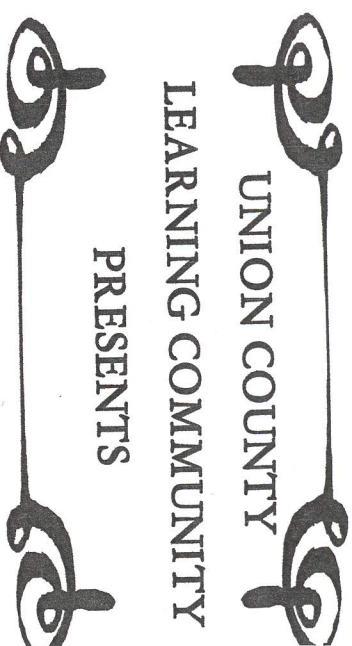
Three common conversions deal with purchasing the following:

- ▶ Fabric
- ▶ Lumber
- ▶ Gasoline

This publication is the end product of a collaborative project of the *Learning Community* MAT 015/016 and UCC101/024. Students were divided into groups to research math concepts. The assignment fulfills two purposes: it provides a vehicle for individual reinforcement of the challenging course content; and it offers the general student population both an example of an engaging creative activity in MAT 015, and a review or tutorial of the printed math concept.

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The What and How of Mixed Numbers

What are mixed numbers?

Mixed numbers have both whole numbers and decimals. Such as 4.567 or whole numbers and fractions, such as two and one half (2 1/2).

ADDING MIXED NUMBERS

Example Problem: $3 \frac{2}{5} + 1 \frac{3}{5}$

Step 1: To add mixed numbers, we first add the whole numbers together and then add the fractions.

$$3 + 1 = 4$$

Step 2: Add the fractions

$$2/5 + 3/5 = 5/5 \text{ or } 1. \text{ Add the } 1 \text{ to the } 4$$

to get the answer, which is 5.

SUBTRACTING MIXED NUMBERS

Example Problem: $4 \frac{2}{3} - 3 \frac{1}{3}$

Step 1: Convert the fraction to an improper fraction by multiplying the whole number by the denominator. Add the answer to the numerator and keep the denominator of the fractional part.

$$4 \frac{2}{3} = 14/3 \quad 3 \frac{1}{3} = 10/3$$

Step 2: Subtract the improper fractions

$$14/3 - 10/3 = 4/3$$

Simplified answer ... 1 1/3

PRACTICE PROBLEMS

ADD

1. $4 \frac{3}{8} + 2 \frac{3}{8} =$ _____

2. $3 \frac{2}{5} + 1 \frac{3}{5} =$ _____

3. $5 \frac{2}{3} + 2 \frac{2}{3} =$ _____

SUBTRACT

4. $5 \frac{3}{4} - 3 \frac{2}{4} =$ _____

5. $6 \frac{3}{5} - 1 \frac{1}{5} =$ _____

6. $2 \frac{2}{3} - 1 \frac{1}{3} =$ _____

ANSWERS

1. $6 \frac{3}{4}$

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

2. 5

5. $5 \frac{2}{5}$

3. $7 \frac{3}{4} = 11 \frac{1}{3} + 7 = 8 \frac{1}{3}$ 6. $1 \frac{1}{3}$

NOW YOU TRY USING THE RECIPE BELOW

SUGAR COOKIES with SPLENDA

- 3/4 cup unsalted butter
- 1/4 cup light butter
- 1 cup SPLENDA No calorie Sweetener, Granulated
- 1 Tablespoon vanilla 1/4 cup egg substitute
- 1/4 cup water
- 3/4 teaspoon vinegar (white or cider)
- 1 1/2 cups all purpose flour or wheat flour
- 1 1/2 cups cake flour
- 1/4 teaspoon salt 1teaspoon baking powder

For cooking directions go to:

<http://www.tudiababetes.org/profiles/blogs/yummy-sugar-free-holiday-sugar>

EXAMPLE 1: Mary is having a holiday party and needs two batches of sugar cookies. How much flour will she need to make two batches?

EXAMPLE 2: Mary over measured her flour and ended up with 4 1/2 cups of flour which is enough for three batches of cookies. How much does she need to take away to have enough for two batches and what is the final answer?

ANSWERS

Example 1: 3 cups of flour

Example 2: 3 cups of flour