Name_____

Adding and Subtracting Like Fractions (5.2)

To **add** or **subtract** fractions with the same denominator, write the sum or difference of the numerators over the denominator

$$\frac{4}{9} + \frac{1}{9} = \qquad\qquad\qquad \frac{9}{11} - \frac{2}{11} =$$

Examples

1. Adding Like Fractions

$$\frac{77}{100} + \frac{9}{100} =$$

2. Subtracting Like Fractions

a. $\frac{-4}{7} - \frac{2}{7} =$

b. $\frac{1}{10} - (\frac{-3}{10}) =$

Extra Practice

To **add** or **subtract** mixed numbers, you first write the mixed numbers as improper fractions

3. Adding and Subtracting Mixed Numbers

a. $5\frac{5}{9} + 2\frac{7}{9} =$

b. $- 10\frac{6}{13} - 6\frac{8}{13} =$

Extra Practice

4. Simplifying Variable Expressions

a. $\frac{3a}{20} + \frac{5a}{20} =$

b. $\frac{-8}{3b} - (-\frac{2}{3b}) =$

Adding and Subtracting Unlike Fractions (5.3)

Remember:

To **add** or **subtract** fractions with different denominators, write equivalent fractions that have the same denominators

3 methods

A. Is one denominator a multiple of the other?

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

B. If the denominators of the fractions are less than 10 multiply the denominators

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

C. Find the Least Common Denominator (LCD)- use their multiples

$$\frac{1}{12} + \frac{3}{16} =$$

Examples

1. Adding and Subtracting Fractions

a. $\frac{5}{12} + \frac{1}{3} =$

b. $\frac{-5}{6} - \frac{7}{9} =$

2. Adding Mixed Numbers

$$- 4\frac{2}{5} + (- 2\frac{6}{11}) =$$

Extra Practice

3. Subtracting Mixed Numbers

$$10\frac{1}{5} - 5\frac{3}{4} =$$

Extra Practice

4. Simplifying an Expression

Simplify $\frac{a}{2} - \frac{a}{6}$