

Alg. Lesson 0-4 Adding/Subtracting Rational Numbers—teach as calculator use

PASS: Alg. 1.2a. Simplify and evaluate linear, absolute value, rational and radical expressions.

Adding and subtracting fractions:

Step 1: Find a common denominator. Use the GCF or multiply the denominators together.

EX) $\frac{1}{2} + \frac{2}{3} = \frac{1}{2} + \frac{2}{3} = \frac{\quad}{6} + \frac{\quad}{6}$ the denominators are 2 and 3. The GCF is 6 (if we multiply them together it is also 6.) so we will use 6 as a common denominator.

Step 2: Find equivalent fractions—remember, WHATEVER YOU DO TO THE TOP, YOU HAVE TO DO TO THE BOTTOM!!! This keeps the values the same, thus they are equal fractions.

Ex) $\frac{1}{2} \times \frac{3}{3} + \frac{2}{3} \times \frac{2}{2} = \frac{3}{6} + \frac{2}{6}$

Step 3: Add or subtract the numerators only!! Since the denominator tells us how many pieces the whole is cut into, it must stay the same, since we are not changing the SIZE of the pieces here. We only want to know how many pieces we have!

Ex) $\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$

Step 4: Simplify!

Make sure your fraction is simplified so that it cannot be simplified more.

**In Alg., there are many times we use improper fractions, so unless specifically asked to change an improper fraction to a mixed number, leave it alone!

Adding and subtracting decimals

Step 1: When adding and subtracting decimals, line up the decimal places.

Ex) $4.35 - 2.134$ should look like $\begin{array}{r} 4.35 \\ -2.134 \\ \hline \end{array}$

Step 2: Fill in decimal places with zeros so that the decimal places are all equal.

$$\begin{array}{r} 4.350 \\ -2.134 \\ \hline \end{array}$$

Step 3: Add/subtract like normal.