

WA 30 Review Topics

- Reducing Fractions
- Cross multiplying
- Problem solving strategies

Reducing Fractions

When reducing fractions, always look for a common multiple in the numerator (top number) and denominator (bottom number).

Divide both by this number.

Repeat until there are no more common multiples to divide by.

$$\text{Ex. } \frac{12}{36} \div 12$$

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

$$\frac{35}{80} \div 5$$

$$= \frac{7}{16}$$

$$\frac{58}{122} \div 2$$

$$= \frac{29}{61}$$

Reminder: a prime number is any number that can only be divided by itself and one.

List five examples of prime numbers.

7, 29, 61, 2, 13, 23, 11, 19, 5

Cross Multiplying

To cross multiply, set two fractions equal to one another. The units must be the same on top and the same on the bottom for this to work properly.

Cross multiply, then divide to find the variable.

Reminder: a variable is any number (usually represented by a letter or symbol) that we don't know.

Reminder: every number is a fraction. If it doesn't have a denominator, the denominator is an "invisible one." (Ex. $2 = \frac{2}{1}$)

Ex. $\frac{1}{3} = \frac{x}{12}$

$$\frac{12}{3} = \frac{3x}{3}$$

$$4 = x$$

$$\frac{13}{43} = \frac{93}{y}$$

$$\frac{13y}{13} = \frac{3999}{13}$$

$$y = 307.6154$$

$$\frac{18}{z} = \frac{5}{12}$$

$$\frac{5z}{5} = \frac{216}{5}$$

$$z = 43.2$$

Problem Solving Strategies

1. Read the problem.
2. Identify what the problem is about. (Surface/story).
3. Circle what you are looking for (the key word(s) in the question).
4. Underline any info (numbers or mathy words) that will help you solve.
5. Set up your equation.
6. Solve.
7. Check your answer. Does it make sense?
8. Write a sentence.

Ex. Cheryl is going to bake 180 cupcakes for her Halloween party. Her recipe, for a dozen cupcakes, calls for two eggs. Which of the following methods should she use to figure out how many eggs she'll need to make the 180 cupcakes?

$$\frac{2}{12} \rightarrow \frac{x}{180}$$

$$\frac{360}{12} = \frac{12x}{12}$$

$$30 = x$$

She needs
30 eggs
for the recipe.

Assignment:

- Reducing Fractions Review
- Solving Equations by Cross Multiplication
- Problem Solving Practice

- all

- #1-10

due
Thurs.