

Proportions and Percents

Overview:

Students will use proportions to find a percent of a number

Understanding Goals:

By the end of the lesson students will understand:

1. A part of a whole can be measured with amounts as well as with percentages
2. the ratio of (partial amount)/(whole amount) is in proportion to the ratio of (partial percent)/100%.

Learning Objective: Students will be able to solve for a percentage of a whole amount using proportions

Subject Area: 6th grade Math

Connection to California Standards:

6.RP Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities

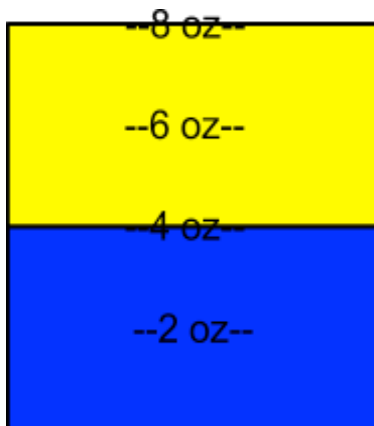
Time: 54 Minutes

Materials: yellow and blue dyed water, graduated cylinders, irregularly shaped containers of 6, 10, 12 oz

Procedure:

Warm Up

- Do Now: Students describe the contents of the measuring glass by using amounts (in ounces), fraction, decimal, and percent



Presentation/Exploration:

Word Problem:

José and his family moved to a new home and José is excited to get his own room.

Unfortunately there are some chips in the paint, so José decided that he will paint over the chipped paint. José has determined that the green is gotten from mixing 50% blue paint with 50% yellow paint. He also determines that he needs 8 ounces total. How much blue paint will he use?

- Go over how to use proportions to determine the answer.
- Explain procedure and why it works

Independent practice:

- Use proportions to determine how much blue and yellow paint you would need to fill the following containers the right shade of green.
- Then use your graduated cylinders to measure the amounts and create your mixture (using dyed water instead of paint) and determine if your answer was close based on your results.

