

Ratio and proportions Ch 6

Grade 7

6-1 Ratio

- Be able to express a ratio in 2 different forms: 2:3, 2 to 3 and $\frac{2}{3}$.
- Identify Equivalent ratios – rename ratios by either multiplying or dividing the ratio.
- Express ratios in simplest form ie simplify fractions.

6-2 Unit Rate and Unit Cost

- Be able to find unit rates. Remember: a unit rate is a ratio that is simplified to have a denominator of 1 unit.
- Be able to find and use the unit cost of an item.
- Remember: a rate compares two unlike quantities. Ex. mile per hour or beats per minute.

6 -3 Write and Solve Proportions

- Be able to write a proportion from a word problem.
- Use the cross-product rule to determine whether ratios form a proportion.
- Use the cross product rule to find the missing term in a proportion.

6-4 Direct Proportions

- **Direct proportion** - Two quantities have a direct proportion relationship when an increase or decrease in one quantity causes the same change in the other quantity.
- Again be able to use the cross-product rule and find the missing term in a proportion.

6-6 Scale Drawings and Models

- Be able to use proportions to solve scale-drawing and scale models problems.
- Be able to use a map or diagram scale
- Be able to use the scale factor to make a scale-model
- Make sure you have an inch ruler!

6-7 Similarity

- Be able to name corresponding parts of similar figures.
- Set up a proportion with corresponding parts and similar figures.
- Use proportions and the cross-product rule to find missing dimensions.

6-8 Indirect Measurement

- Use indirect measuring, such as the shadow problems, to find missing dimensions of similar figures.

6-9 Inverse Proportion

- Two quantities have an inverse proportion relationship when an increase or decrease in one quantity causes the opposite change in the other quantity.

6-10 Dimensional Analysis

- Use unit rates to convert currency, time, and customary units of length, capacity and weight. For example, convert pounds to ounces, feet to yards, and/or euro \$ to American \$.