

Grade 5 Mathematics Unit Preview

Quarter 4: Number Relationships and Computation (Multiplication of Decimals, Ratios, and Proportions)

Objectives: (Your student will be able to)

- **Explain and give an example of ratio and equal ratio.**
Ratio: 2:3, or 2 to 3, or $\frac{2}{3}$
Equal Ratios: 2:3 = 6:9
- **Identify equal ratios by finding equivalent fractions.** For example, the ratio 3:6 is the same as 1:2. If you have 6 marbles in a bag and 3 are blue, you have a 3:6 chance of pulling a blue marble. That is the same as 1 out of 2.
- **Calculate the percent of a number using the % key on a calculator.** For example, what is 36% of 24? 36% is close to $\frac{1}{3}$. So it is about 8. Input 36×24 into the calculator. Press the % key to arrive at 8.64.
- **Use percent to solve problems involving sales, commissions, and tips.**
- **Calculate and estimate the percent of a given number.** For example, CDs are on sale this week at Music Mania - 25% off the original price. You find a CD for \$16.00 (regular price). What is the sale price of the CD?
- **Multiply a whole number by a decimal.** For example, if you buy 5 yards of material at \$2.75 a yard, how much money will you spend?
- **Divide a decimal by a whole number.** For example, if a crew of four painters were paid \$96.32 to paint a room, how much would each painter's equal share of the money be?

Vocabulary: (Words your student will need to understand)

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| <ul style="list-style-type: none"> • Ratio: A comparison of two numbers. Example: 3 : 4, $\frac{3}{4}$, or 3 to 4. | <ul style="list-style-type: none"> • Proportion: A statement that two ratios are equal - two fractions that are equal |
| <ul style="list-style-type: none"> • Equivalent Ratios: Ratios that name the same comparisons | |

Activities to do with your student (in addition to homework, optional):

- Calculate and determine the percent of a number in real life situations (sales at a store, tips at a restaurant, and sales tax).
- Use old book orders or sample menus to calculate change, tips, commissions, or taxes.
- Use real world problem solving situations to multiply a whole number by a decimal and divide a decimal by a whole number.
- Practice finding ratios and equal ratios by finding equivalent fractions.
- Practice multiplication and division basic facts.

