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| **Clarity for Learning** | | | |
| **Standard KY.7.RP.3** Use percents to solve mathematical and real-world problems.  a. Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, a part, and a percent, given two of these.  b. Use proportional relationships to solve multistep ratio and percent problems. | | | |
| **Concepts (Nouns)**  percents  percent of a quantity  rate per 100  proportional relationships  ratio | | **Skills (Verbs)**  use  solve  find | |
| **Learning Progressions**  *Prerequisite Skills:*   * Express ratios as part-to-part or as part-to-whole*.* * Calculate equivalent ratios using multiplication and division. * Understand the concept of percent as a special type of rate in which the first term is compared to 100. * Use rates and unit rates to solve problems.   *Grade Level Skills:*   * Use bar diagrams to represent the relationship between the whole and the part and solve percent problems. * Understand the relationship between fractions, percents, and decimals. * Write a proportion to model a percent situation. * Use a percent proportion to find an unknown part, whole or percent. * Write and use the percent equation to solve problems involving proportional relationships. * Use bar diagrams and the percent equation (part = percent x whole) to find the percent change (whether it be an increase or decrease). * Understand and calculate the percent of markup and markdowns. * Understand what simple interest is and how it is calculated.   *Clarifications:*  a. For example, 30% of a quantity means 30/100 times the quantity.  b. Could include but not limited to simple interest, tax, markups and markdowns, gratuities and commissions, percent increase and decrease, percent error.  KY.6.RP.3c → KY.7.RP.3 | | | |
| **Learning Intentions (I am learning to...)** | | **Success Criteria (I know I’m successful when...)** | |
| Make connections between equivalent ratios, percents and proportional relationships and use them to solve real-world problems. | | * I can understand, find and analyze percents of numbers. * I can use equivalent ratios to find a percent of a number. * I can use proportions to solve percent problems. * I can represent and solve percent problems using the percent equation (part = percent x whole). * I can solve problems involving percent change (increase or decrease) and percent error using the percent equation. * I can understand the effect a markup or markdown has on the selling price. * I can find the percent markup and markdown and apply it to determine the selling price. * I can apply percent reasoning to solve simple interest problems. | |