Percent Application Notes

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| There are two methods to solve percent problems. | 1) proportions  2) equations |
| There are three types of percent problems. | 1) missing percent  2) missing part  3) missing whole |
| Sometimes the problem is a multi-step which means we may have to work more than one problem to complete it. | Examples: Finding sale price  Finding the total cost |
| New vocabulary: | **Discount**: the amount saved  **Tax**: a fee on purchased items  **Tip**: extra payment to service provider (also called gratuity)  **Commission**: a percentage of money that a sales person receives after making a sale (also applies to agents)  **Mark Up**: the amount an item is increased for sale to make a profit  **Mark Down**: same as discount |
| Tips to solving Percent Application Problems: | 1) recognize the important information  2) make a plan (proportion or equation)  3) identify what the question is asking  4) solve  5) make sure you answer the question and the answer make sense |
| Example 1: Percent Problem about prices | A car dealer makes a 12% commission on each car he sells.  How much commission does he make if he sells a car for $42,000?  1)Important info: 12% commission on $42,000  2) equation (could also use proportion)  3) How much will he make?  4) .12∙42000 = $5040  5) He makes $5040 commission |
| Example 2: | There are 6 red scooters (40% of the scooters are red) in a store.  How many scooters are there total in the store?  1) Important info: 6 red is 40% of total  2) proportion (could also use equation)  3) How many total scooters?  4) , x = 15  5) There are 15 scooters total |
| Example 3: | An ad shows a DVD player on sale for 25% off the original price. If its original price was $242, what is the sale price?  1) Important info: 25% off of 242  2) equation  3) What is the sale price?  4) .25 ∙ 242= 60.5, $60.50  5) $60.50 is not the sale price, it is the amount saved. We must subtract $60.50 from the original price to find the sale price of $181.50.  Another option is to use 75% instead of 25% in our equation. Since the discount amount is 25%, we are paying 75% of the original price. Using 75% allows students to skip the last step of subtraction. The equation is .75 ∙242 = $181.50. |