Percent Application Notes

|  |  |
| --- | --- |
| There are two methods to solve percent problems. | 1) proportions2) equations |
| There are three types of percent problems. | 1) missing percent2) missing part3) 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 priceFinding 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 information2) make a plan (proportion or equation)3) identify what the question is asking4) solve5) 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 $42,0002) equation (could also use proportion)3) How much will he make?4) .12∙42000 = $50405) 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 total2) proportion (could also use equation)3) How many total scooters?4) $\frac{40}{100}=\frac{6}{x}$, 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 2422) equation3) What is the sale price?4) .25 ∙ 242= 60.5, $60.505) $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. |