**Mini Lesson #2: Percent Problems (Math 7 – Percent Unit)**

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| **Percents and Proportions: Finding the Part**   1. To find a part, the whole, or a percent, use the following proportion   EX 1: 25% of 20 is 5 🡪 \_\_\_\_\_\_ = \_\_\_\_\_\_\_  OR   1. To find the PART, use the equation: **PERCENT (%) x Whole (of) = Part (is)**     EX 2: 85% of 200 |
| **Proportions can be used to find a missing value**  **Set up a proportion or use equation above, then solve**  1) 80% of 20 is what? 2) 25% of 60 3) 0.45% of 67 |
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**Real Life Situations for Percents**

* **Set up a proportion and then solve the problem.**

1. In a class of 35, about 77% of the class said they will bring their lunch for the field trip. How many students will bring lunch? How many will need to buy lunch?
2. If you save 20% of your paycheck each week, how much would you save if you made $224 a week?

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| 1. **TIP: The extra money paid to someone who provides a service (waiter/ hairdresser/nail tech)** The meal cost $110.89. The service was great and you want to leave a 20% tip. How much is the tip? Total Meal? 2. **COMMISSION: Money paid on an amount of sales** Real Estate: You earn 4.5% commission on a house sold for $175,000. How much commission did you earn? 3. **SALES TAX: Extra money added to a price** If a coat cost $45.56 and the tax is 7%. What is the total cost of the coat with tax? 4. **DISCOUNT (Money saved when something is on sale) and SALE PRICE (The cost of an item after the discount has been taken off)** A pair of boots originally cost $205 and is on sale for 40% off. What is the discount? What is the sale price? 5. **MARK-UP: Money added to a price**     **WHOLE SALE PRICE: Price of an item before the mark-up**  **RETAIL PRICE: Price of an item after the mark-up has been added**  You own as store and you get some lamps to sell that cost you $35. To make a profit you put a 110% mark-up on the lamps. What is the mark up? What will be the retail price you sell the lamps for? |

Practice Page for Percent Unit ML #2 (Math 7)

1. What is 18% of 150? 2) 153% of 70?
2. The teacher said that in order to have fun day 90% of the class had to make an A or B on the test. If there are 30 students in the class, how many students needed to make an A or B?
3. The meal cost $42.75. The service was great and you want to leave a 20% tip. How much for the total meal (this includes the tip amount)?
4. On Saturday, you sold a shirt for $13.50, a pair of jeans for $29.99, and 3 pairs of shoes for $35.95. If you make 8% commission, how much commission did you earn on the clothes?
5. If a pair of shoes cost $45.56 and the tax is 7%. What is the total cost of the shoes?
6. An iPod originally cost $140 and is on sale for 30% off. If the tax rates is 6.5%, then what will you pay for the iPod?