**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

$\frac{part (is)}{whole(of)}=\frac{\%}{100}$EX 1: 25% of 20 is 5 🡪 \_\_\_\_\_\_ = \_\_\_\_\_\_\_OR1. 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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**Rounding****Place value table:** **Rules for rounding**1. Underline the place value you are rounding your number to
2. Mark a line to the right of this number.
3. Look at number to the right of the line, then choose A or B
4. If number is 5 or greater, add 1 to the underlined number.
5. If number is less than 5, then leave underlined number the same
6. Turn all numbers to the right of the vertical line to 0’s. You get rid of any numbers if they are after the decimal point.

Ex1 - Round to nearest tenth: 13.458 Ex 2 – Round to nearest cent: $6.832 |

**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?