Problem 1 – Percent %

Write the decimal equivalent of the following percentages. For Questions 4 and 5, write a scenario with the percent.

1. You receive better than average service at a local restaurant and decide to tip 17%.____

2. North Carolina raised its sales tax to 4.5% in 2008. _____

3. For good service, the tip for eating at a local restaurant should be 15% before tax.

4. 5.75%._____

5. 10%. _____

Observe the pattern in the above percentage to decimal conversion.

- Explain the pattern. What happens to the 'decimal'?

Problem 2 – $T = r \cdot p$

Read page 2.1 of the TI-Nspire document. When using a formula, it is helpful to know what a variable represents.

List the meaning of the letters in the tips or taxes equation.

$T =$

$r =$

$p =$

Item number	Price
1. socks	$4.79
2. hat	$20.53
3. pants	$45.88
4. TI-Nspire	$131.97
5. shoes	$149.99
6. dress	$200.27
7. mp3 player	$250
8. laptop	$1000

On page 2.4, use the arrows next to **n** to select one of the items shown at the right. Use the arrows next to **r** to change the tax rate.

Record the information for three different items below.

1. Item _____ price = _____ tax rate = _____ tax paid = _____

2. Item _____ price = _____ tax rate = _____ tax paid = _____

3. Item _____ price = _____ tax rate = _____ tax paid = _____

- What is the sum of the **taxes paid** on the three items?

- What is the tax paid after summing the prices of the three items?

- How do these two amounts compare?

Problem 3 – Taxes and Tips - Mental Math, Estimating

Read page 3.1 to see how 15% of an amount is estimated.

- Estimate the 15% tip if the bill before taxes was $17.97.

- Approximately, what is a 20% tip on $51.12? What was your thought process?

Extension

Read the example given on page 4.1. Notice that the sales tax percentage is adjusted to make an easier estimation.

You are eating at a restaurant in a state that has 7.25% sales tax. The bill for dinner is $1.98 tax. You decide to leave a 15% gratuity.

- You leave a tip of how much? (Hint: 7.25% times 2 is close to 15%)

- How much was the original bill before tax and tip? Show your calculations.