

Name _____

Date _____



Mr. Tallman

Do Now

You go out to dinner. The restaurant bill is \$70. The tax is 7% and you would like to leave a 20% tip.

Part A) Calculate the tax and tip amounts.

orig: 70

$$x = 70(.27)$$

tax/tip: x

$$x = \$18.90$$

∴ 27%

Part B) What is the total cost of the meal after tax and tip?

$$70 + 18.90 = \text{\$}88.90$$

Lesson #40 - Multi-Step Percents Day Two

1) On David's vacation, he went on a tour for \$150. There is a 4% sales tax on all tours. David wants to tip the tour guide 15%.

Part A) How much tax will David be charged?

orig: 150

$$\text{tax} = \text{orig}(.04)$$

tax: x

$$x = 150(.04)$$

∴ 4%

$$x = \text{\$}6$$

Part B) What is the amount of tip David should leave?

orig: 150

$$\text{tip} = \text{orig}(.15)$$

tax: 15x

$$x = 150(.15)$$

∴ 15%

$$x = \text{\$}22.50$$

Part C) How much will David have to spend in total?

$$150 + 6 + 22.50 = \text{\$}178.50$$

2) A clothing store used the sign shown below to advertise a discount on shirts.

DISCOUNT

Buy Two Shirts

Get 50% Off Third Shirt

Ky wants to buy three shirts, which were originally priced \$49.96 each. The store will discount the price of the third shirt and then apply a 7.1% tax to the total cost of all three shirts. Including the tax, what will be the total cost of all three shirts?

Shirt 1: \$49.96

Shirt 2: \$49.96

Shirt 3: $49.96(.5) = \$24.98$

Total: \$114.90

Orig: 114.90
 tax: X
 y: 7.1

tax = orig(.071)
 $X = 114.90(.071)$
 $X = \$8.16$

$114.90 + 8.16 = \$123.06$

3) A home-improvement store sold wind chimes for \$30 each. A customer signed up for a free membership card and received a 5% discount off the price. Sales tax of 5% was applied after the discount. What was the final price of the wind chime?

Discount

orig: 30

disc = orig(.05)

disc: X

$X = 30(.05)$

$X = \$1.50$

$30 - 1.50 = \$28.50$

y: 5

Tax

orig: 28.50

tax = orig(.05)

tax: X

$X = 28.50(.05)$

$X = \$1.43$

y: 5

$28.50 + 1.43 = \$29.93$

4) The local shoe store bought 200 pairs of tennis shoes for \$16 per pair and then marked them up 375%. They sold 98 pairs at this price. What was the total selling price of the shoes that were sold?

Orig: ~~\$200~~ 16 mu = ~~\$3200~~ (3.75)

mu: x mu = ~~\$121000~~

y: 375 mu = \$60

60 + 16 = \$76 per pair

98(76) = \$7448 on all 98 pairs

5) Marcus and his little brother went out to lunch. The total of what they ordered is \$26.54, not including tax. The tax rate is 7.75% and Marcus would like to leave a 15% tip. If Marcus had \$40, how much money would he have left?

Orig: 26.54 x = 26.54 (.2275)

tax/tip: x x = \$6.04

y: 22.75% 26.54 + 6.04
\$32.58
total

40 - 32.58 = \$7.42

He will have \$7.42 left.

6) The total of Mrs. Hernandez's grocery bill was \$386.54. Of that, \$64.83 was taxed. If the local tax rate is 8.65%, what was her total grocery bill after taxes?

Orig: 64.83 tax = orig (r.)

tax: x x = 64.83 (.0865)

y: .0865 x = \$5.60

386.54 + 5.60

\$392.14 was her total bill

7) The coach for a basketball team wants to buy new shoes for her 12 players.

Super Sports is offering a 20% discount on each pair of shoes, which were originally priced $\$72.50$. A 6.5% sales tax will be applied to the discounted price.

$$72.50(12) = \$870$$

The same shoes are also available on Double Dribble's web site for $\$54.75$. A 9% processing fee will be applied to the cost of the shoes, plus a shipping fee of $\$5.99$ for each pair.

$$5.99(12) = \$71.88$$

$$54.75(12) = \cancel{\$657} \\ \$657$$

What is the difference in the total costs of the 12 pairs of shoes between the two stores?

Store 1	Disc	Tax	
Orig: 870	disc = orig(20%)	Orig: 696	tax = orig(6.5%)
disc: X	$X = .2(870)$	tax: X	$X = 696(.065)$
r: 20	$X = \$174$	r: 6.5	$X = \$45.24$
	$870 - 174$		$696 + 45.24$
	$\$696$ after discount		$\$741.24 \rightarrow$ Final Price

Store 2	Fee	
Orig: 54.75	54.75	
mu: X	$X = \cancel{54.75}(.09)$	
r: 9	$X = \\$4.93$	
	$X = \$59.13$	
	$657 + 59.13 = \$716.13$	
		$\$716.13 + 71.88 = \textcircled{\$788.01}$
		Final Price

Difference: $741.24 - 788.01 - 741.24 = \textcircled{\$46.77}$