



Concept: Percent in Business


Name: _____

COMPUTER COMPONENT

Instructions: In  follow the **Content Menu** path:
Percent > Percent in Business

 Work through all Sub Lessons of the following Lessons **in order**:

- *In This Topic*
- *Sales Tax*
- *Discount*
- *Commission*
- *Simple Interest*
- *Compound Interest*

 As you work through the computer exercises, you will be prompted to make notes in your notebook/math journal.

NOTES:

Fill in the blanks for the following formulas.

Simple Interest:

Amount = _____ + _____

Interest = _____ × _____ × _____

When you receive interest on interest, we say that the interest is

_____.

The AMOUNT at the end of one year becomes the new _____ for the next year.

Compound Interest:

Amount - _____ (1+ _____)^{year}

OFF COMPUTER EXERCISES**Solve the following:**

1. Gabby buys herself a new jean jacket priced at \$59.99. Sales tax in her region is 15%. *How much will she have to pay in total for the jacket?*

2. Clare and Roy's restaurant bill comes to \$45.35.

(a) Calculate the amount of tax they would pay at 11%.

(b) Calculate the tip. The service was good so they plan to tip 15% of the cost of the meal. (*Cost of the meal does not include the tax.*)

(c) How much will Clare and Roy paying in total for their meal?

3. Theo bought a new pair of shoes. The sales tax of his purchase was \$4.80. In his region, the sales tax is 15%. *How much were the shoes that he bought?*

4. A new resort has opened up just on the outskirts of the city with a water park entertainment center. They have posted 4 different rates. The rates are listed in the chart below.

Jackson's Hotel Room Packages			
A	B	C	D
Daily Rate	2-Day Package	3-Day Package	7-day Package
\$136 plus 15% tax	\$264 plus 15% tax	\$439 (tax included)	\$1150 (tax included)

Deb her friends, are planning to take a 7 day vacation at the resort. *What is the least expensive way for their friend to stay for 7 days?*

5. Normally, movie tickets sell for \$8.00 each. The movie theater is having a sale! If you buy 4 or more tickets, you get \$1.00 off each ticket. *What percent discount is this?*

6. A car salesperson earns 2.8% commission of every sale that she makes. If the salesperson sold a car for \$21 000, *how much would she earn form that sale?*
7. Pedro works at a computer store. He earns a 4 % commission on all his sales. *What amount must he sell for his commission to be \$200?*
- (a) His boss offered him an opportunity to earn a flat rate per week of \$300 dollars with a lower commission. Normally he earns \$500 a week. Assuming he sells the same amount each week, *what rate would his commission have to be to maintain his weekly salary of \$500?*

8. Colin has \$1500 in a bank account. The account pays Simple Interest of 1.5% per year. *How much money will Colin have after 4 years?*
9. Carla has \$1500 in an investment. Her investment pays 1.5% Compound Interest per year. *How much money will Carla have in total after 4 years?*
10. A credit card company charges 17% Simple Interest per month on all overdue accounts. Patrick has a balance of \$250 on his credit card.
- (a) Assume that Patrick pays his credit card bill after 6 months have passed. *How much will he owe then?*

- (b) Assume that Patrick pays his credit card bill after 12 months have passed.
How much will he owe then?

11. Charlie invests \$1000 for 5 years. The investment is a Compound Interest investment with the interest rate of 8% per year.

- (a) *How much money will Charlie have at the end of the 5 years?*

- (b) *How much interest has Charlie earned over the 5 years?*

12. Leslie's favorite sports store is having a sale, but Leslie can only afford to buy one item. She has narrowed her choices down to three items:

Item	Original Price	Discount
Squash Racket	\$29.99	5%
Tennis Shoes	\$58.99	40%
Skateboard	\$89.99	60%

(a) Calculate the discounted price for all three items.

(b) Which is the most inexpensive item on the list after the discount?

(c) How much would the most expensive item cost if the cashier offered Leslie an additional 8% off the already discounted price?

Challenge:

13. Last year, an Energy company reported a profit of \$15,000 on natural gas sales of \$1,000,000. This year they made a profit of \$30,000 on natural gas sales of \$1,000,000. When talking to their employees, they claim that their profit increased only by 3%. Employees were enraged and insisted that their profits increased by 100%.

(a) *How did the company and the employees calculate these increases?*

(b) *Which increase do you think is correct? Why?*

12. To solve problems involving percent, it is important to be able to recognize what quantity is the whole (100%). The whole (100%) is the quantity to which the other things in the problem are being compared. Complete the following mind map with as many phrases that can be used to signal 100%. (*You may choose to have students complete this on their own, in pairs, or in groups*)

