

**Title of Lesson:** The Percent GURU

**Grade Level(s):** 9-12

**Learning Objectives:** The lesson objective is to teach the concept of solving business problems using percentages. In order to succeed in the business office, a person should learn to work comfortably with percentages. Another objective is team work. Working with their partner helps develop the student's ability to work as a member of a team. Regardless of the area of business students may want to pursue, team work will be essential.

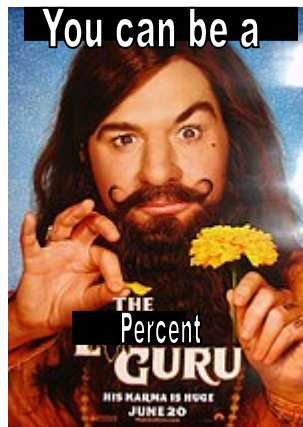
**Rules:**

1. Lesson plans should be for accounting/business teachers to use in accounting/business classrooms.
2. All lessons should be for grades 9-12.
3. Lesson plans should be for a 30-45 minute block of time and may be presented over more than one day.
4. Lessons should be interactive in nature.
5. Lessons can be for the entire class (classes), small groups, or a selected group of students.
6. Lessons should not require special software packages or audio/visual materials to run.

**Materials Needed:**

Handout, Paper, pencil, calculator

**Procedures:** The teacher will hand out the lesson plan and explain the concepts of figuring percentages using the triangle to fill in the three parts. The class will be slit up into pairs for the purpose of small group work and practice. After reviewing the three sample problems, the students will be allowed time for questions. When all the questions are answered, each student will come up with ten practice problems for their partner to work on. When the practice is complete, the students will fill out the quiz. If students make a score 85% or above on their quiz, they can be considered a Percent GURU. If students don't make the 85% on the first quiz, an alternate quiz is available to students who want to retake the quiz. Time should be allowed to review the problems missed on the first quiz.



# THE Percent GURU

There are 3 things that you need to know to be the GURU of all percentage problems. You need to understand what information is given in the problem.

1. Part is the portion of the whole.
2. Whole is the total amount calculated.
3. Percent is the portion of 100 equal parts 100%.

Normally you are given two of the three parts of the triangle. With two parts you can easily figure out the third which will make you the Percentage GURU.

You need to be able to figure out which two parts are given. When you know which two parts you have, it is an easy problem to figure. Then you are on your way to becoming the GURU of percentage problems.



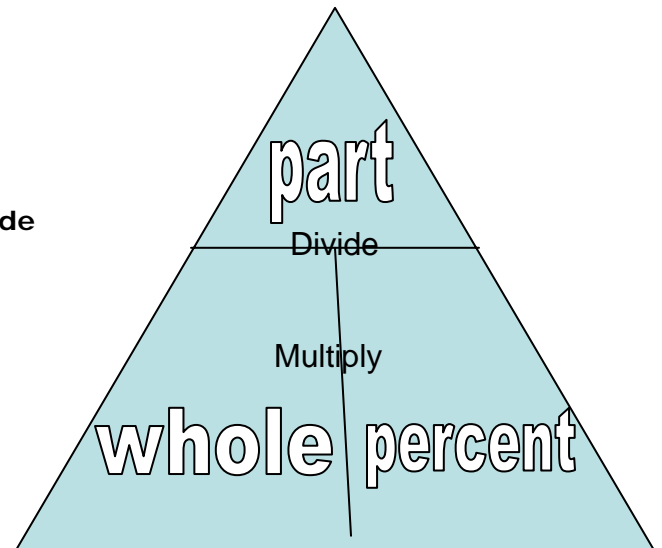
Justin Timberlake as Jacques Grande represents the Part.



Verne Troyer as Coach Cherkov represents the Percentage.



Mike Meyers and Jessica Alba playing Pitka and Jane Bullard represent the Whole.



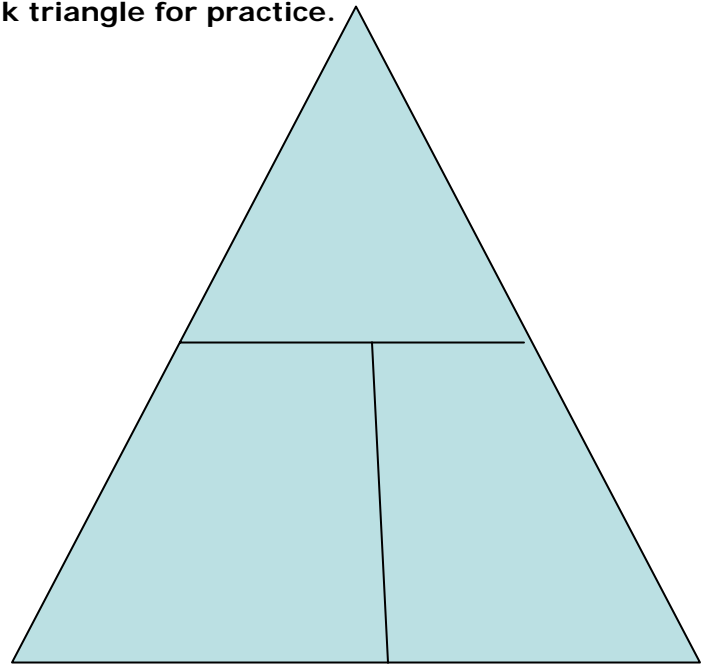
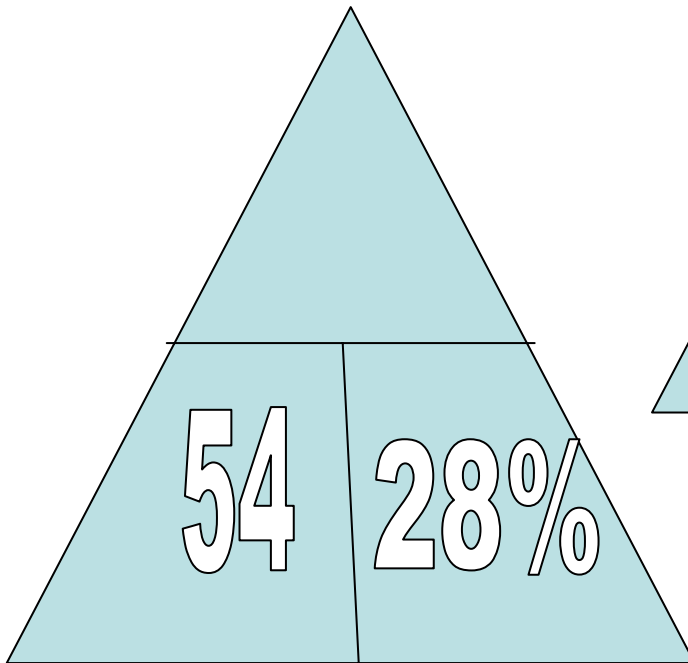
# \*The first kind of problem

The following is a sample problem: What is 28% of 54?

Remember you need to figure out what two parts you have. The Percent is easy....28. You are given the Whole, 54. So the rest will be so simple, GURU.

Cut out the Guru pictures and use the blank triangle for practice.

Fill in your blanks.



X



=



So you end up with  $54 \times 28\% = 15.12$

# \*The second kind of problem

23 is what percent of 47?  
Use your blank triangle

Identify your parts.

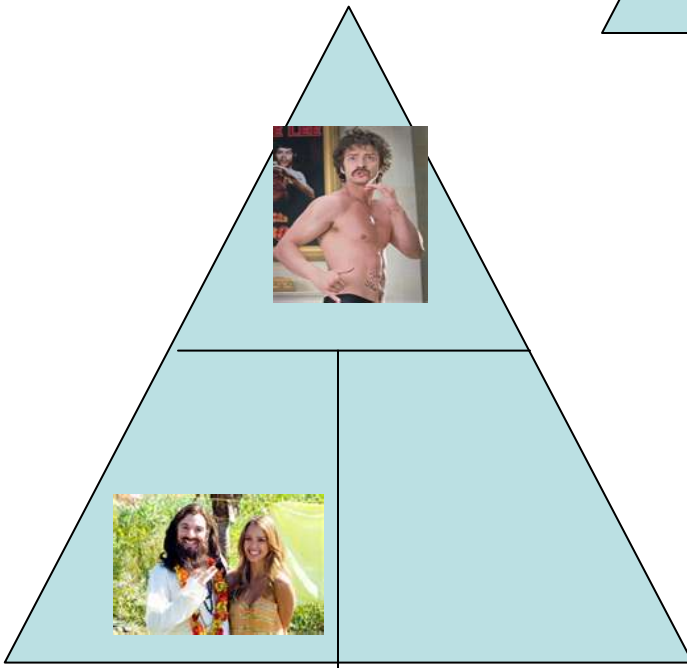
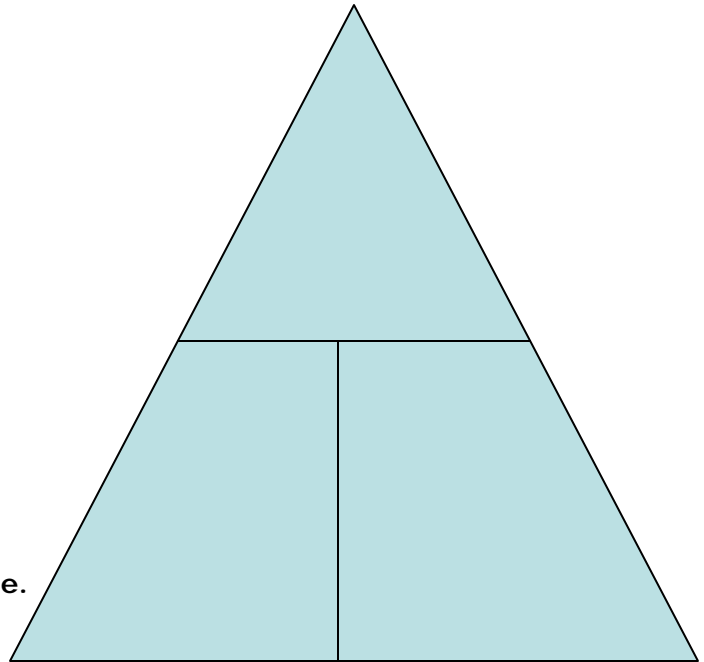


23 is Part =



47 is the Whole. =

The objective is to figure the percentage.



Divided by



=.4893=48.93%

23 divided by 47 =.4893

To change the number to a percent, move the decimal to the right two places. 48.93%

## \*The third kind of problem

40 is 50% of what number?

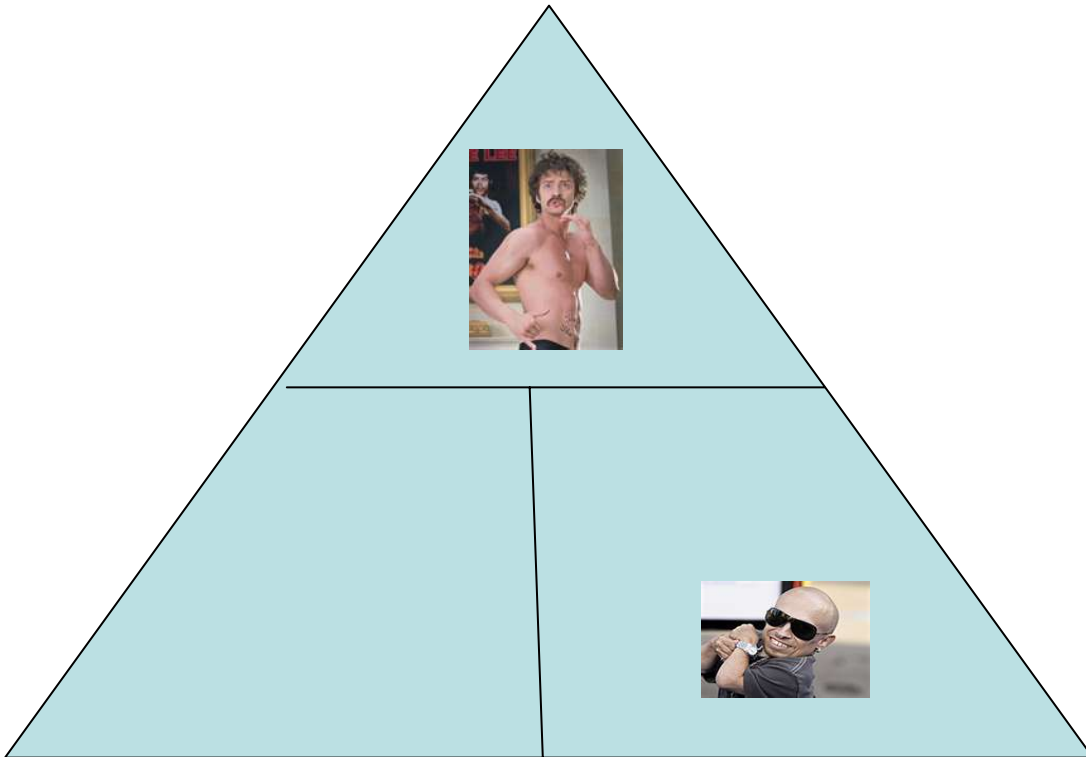
Use your a blank triangle and Identify your parts.



Your Percentage is 50.



Your Part is 40.



Part Divided by

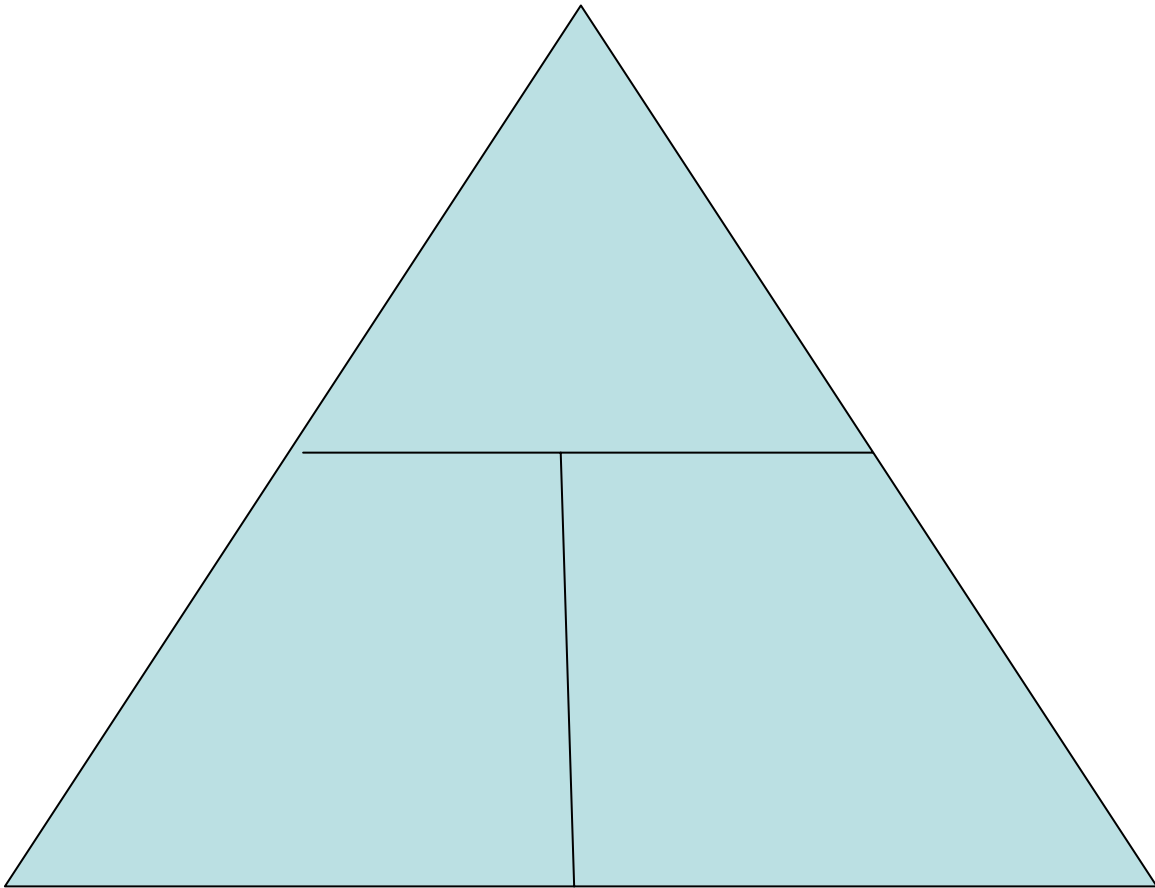


the Percentage = the Whole.

$$40 \text{ divided by } .50 = 80$$

# ACTIVITY SHEET

CUT OUT THE PICTURES AT THE PICTURES AT THE BOTTOM OF THE PAGE.



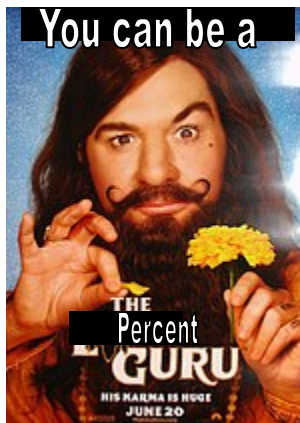
# PERCENT QUIZ

Student's Name \_\_\_\_\_  
Possible Points: 100

Current Date: \_\_\_\_\_  
Student's Score: \_\_\_\_\_

**You now know all three possibilities for percentage problems. Round off your answers to two places, and write your answers on the blank line following the question. You could easily be a Percent GURU.**

1. What is 28% of 2653? \_\_\_\_\_
2. What is 45% of 1256? \_\_\_\_\_
3. What is 39% of 4567? \_\_\_\_\_
4. What is 64% of 4864? \_\_\_\_\_
5. What is 8% of 564? \_\_\_\_\_
6. What is 86% of 95? \_\_\_\_\_
7. 86 is what % of 345? \_\_\_\_\_
8. 53 is what % of 175? \_\_\_\_\_
9. 45 is what % of 1265? \_\_\_\_\_
10. 89 is what % of 237? \_\_\_\_\_
11. 112 is what % of 500? \_\_\_\_\_
12. 45 is what % of 457? \_\_\_\_\_
13. 23 is 95% of what number? \_\_\_\_\_
14. 78 is 89% of what number? \_\_\_\_\_
15. 375 is 59% of what number? \_\_\_\_\_
16. 4435 is 25% of what number? \_\_\_\_\_
17. 772 is 62% of what number? \_\_\_\_\_
18. 35 is 40% of what number? \_\_\_\_\_



## Percent Quiz Answer Key

1. 742.84
2. 565.20
3. 1781.13
4. 3112.96
5. 45.12
6. 81.70
7.  $.2492 = 24.92\%$
8.  $.3028 = 30.28\%$
9.  $.0355 = 3.55\%$
10.  $.3755 = 37.55\%$
11.  $.224 = 22.4\%$
12.  $.0984 = 9.84\%$
13. 24.21
14. 87.64
15. 635.59
16. 17740
17. 1245.16
18. 87.50

