

Practical Percents

Activities Resource Book

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Introduction

Percent is an important aspect of mathematics that often receives minimal attention in students' textbooks. Many authors and publishers are acutely aware of this problem, but are forced to comply with customer preferences and economic constraints in creating their products. The unfortunate result is that student achievement in the percent area is often lacking. Many teachers have identified percent as one of the hard spots to teach in the math curriculum.

The purpose of this book is to address this issue by providing a resource book of activities, games, models, and bulletin board ideas dedicated to the topic of percent. This book is designed to be a supplement to the standard textbook. Some of the activities are designed to be used as blackline masters. Others, such as the group problems, are useful as transparency masters, or may be downloaded in PDF form to be used on IWB at www.iplaymathgames.com. Several of the masters are generic so they can be adapted to local situations or current events by teachers, parents and students. The materials are organized in the traditional sequence, but it is assumed that not every activity will be used by any given group.

Working with Powers of 10

Activities

Using a Calculator to Generate Powers of 10: Multiplication Patterns

Use your calculator to help you complete the chart. Look for patterns.

X	.1	.01	.001	.0001
110				
40				
95				
9.5				
9500				
95000				

Suppose your calculator quit on you. Could you finish anyway?

5.25				
525				
52.5				

What patterns do you notice?

Using a Calculator to Generate Powers of 10: Division Patterns

Use your calculator to help you complete the chart. Look for patterns.

\div	.1	.01	.001	.0001
110				
40				
95				
9.5				
9500				
95000				

Suppose your calculator quit on you. Could you finish anyway?

5.25				
525				
52.5				

What patterns do you notice?

Buying Time

Time is a very precious commodity. Some people like to pretend they can buy it for themselves. Actually, you can only buy other people's time. But it is fun to think about it.

1. Suppose time was for sale at \$10.00 for 1 minute. How much would each of the following common amounts cost?

- a. "Give me a couple more days."
- b. "Give me two more minutes."
- c. "Give me just a minute."
- d. "Give me just a second."
- e. "Ten seconds to go."



2. Suppose time was for sale at \$100.00 per minute. What would be the value of each of the time intervals described in exercise 1?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

3. Suppose time was for sale at \$1000.00 per minute. What would be the value of each of the time intervals described in exercise 1?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

4. Suppose time was for sale at \$0.10 per minute. What would be the value of each of the time intervals described in exercise 1?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

5. Suppose time was for sale at \$0.01 per minute. What would be the value of each of the time intervals described in exercise 1?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

6. Write and solve a buying time problem of your own.

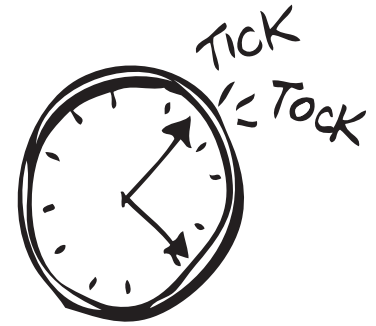
Waiting Time

Do you hate to wait?

Don't wait! Use your mental math skills to solve these problems now!

Diane said, "Hey! Wait a minute!"
How many seconds are in a minute?

Answer: There are 60 seconds in a minute.



Answer these questions about time:

1. Lynn has been waiting 3 hours to see a doctor. How many minutes has she been waiting?
2. Once Roxanne waited 9 months for a tax refund. About how many days did she wait?
3. Carol once had to wait in line 10 minutes for a pretzel at a ball game? How many seconds did she wait?
4. When Rosa gets to work she often waits 5 minutes for the elevator. How many seconds does she wait?
5. After he wakes up, Chuck waits 9 minutes for the coffee to brew. How many seconds does he wait?
6. Sad Sack waits $\frac{1}{2}$ hour after the alarm rings to get out of bed. How many seconds does he wait?
7. Phil has been waiting 5 years for a promotion. How many days has he been waiting?
8. Mary has been waiting 2 months for a hair appointment. About how many hours has she been waiting?
9. Fred waited 5 months to get a dental appointment. About how many hours did he wait?
10. Shirley has been waiting her whole life for the right person to come along. She is 39 years old. How many weeks has she been waiting?