

## Math 7H - Unit 4

## Day 7 - Markup, Tax &amp; Tips

## Lesson Objectives:

- I can use proportional relationship to solve percent problems involving markups, tax, and tips.

To make a profit stores charge more than what they pay for their product. The increase from what the store pays to the selling price is called a **markup**. The selling price is the original price plus the markup.

There are two ways to calculate markup.

A store pays \$70 for a bicycle. The percent of markup is 20%. What is the selling price?

Method 1

Find the amount for markup.  
Add the markup to the original price to get the selling price.

Click here

A store pays \$70 for a bicycle. The percent of markup is 20%. What is the selling price?

Method 2

Add the percent of markup to 100% to get the percent charged. Then use the percent charged to find the selling price.

The store will charge 120% of the original price for the bicycle.

The store charges \$84 for the bicycle.

A store pays \$75 for an aquarium. The markup is 20%. What is the selling price?

$$\begin{aligned} a &= p + m \\ a &= 75 + 15 \\ a &= 90 \end{aligned}$$

A store pays \$12 for a Blu-ray Disc. The markup is 45%. What is the selling price?

$$\begin{aligned} 100 + 45 &= 145\% \\ a &= p + m \\ a &= 1.45(12) \\ a &= \$17.40 \end{aligned}$$

**Sales tax** is added onto an amount after all of the discounts have been taken. Sales tax can go to federal, state, or local governments.

Use the same methods to calculate tax as you did with markups.

A goldfish costs \$1.50. What is the total owed after 5% tax?

$$1.58$$

An new S.U.V. costs \$42,000.00. How much do you pay after 3% sales tax?

$$43260$$

The subtotal for a MP3 player is \$99.50. You need to pay 4% sales tax. What is the total paid for the MP3 player?

$$103.48$$

**Tips** are given to show appreciation for services rendered.

Where should we pay tips?

What percent should we give as a tip?

Use the same methods to calculate tips as you did with markups and tax.

Lu Chan wants to leave a tip of 20% on a dinner check of \$52.48. How much is her tip?

$$10.50$$

A restaurant bill totals \$21.35. You want to leave a 15% tip. What is the total you paid for your meal?

$$24.55$$

Homework

## Markup, Tax, &amp; Tips WKS

\* Individual Think Time \*

Today we're working by...

What to do if you get stuck...

- Reread the problem. Did you write it down correctly?
- Reread your notes. Is there a problem similar that we did together in class?
- Find a problem similar in your book. Try this one to see if it helps.
- Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.