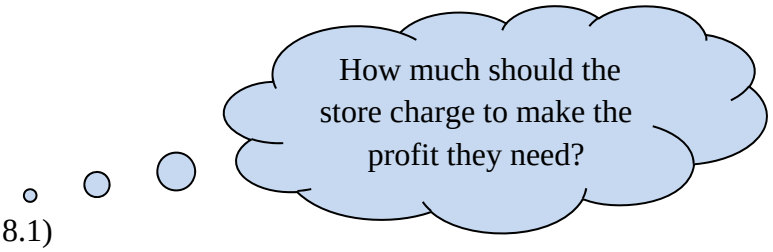
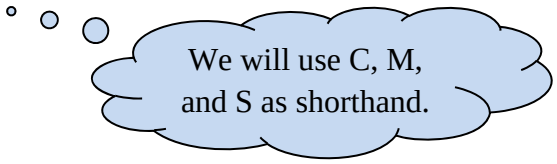
Business Mathematics
Class notes
Markup on Cost (section 8.1)



A store buys merchandise at **cost**. This is the total amount they pay to their supplier. They add a **markup** (aka **margin** or **gross profit**) which pays for **operating expenses** (aka **overhead**) and lets them make a net profit. **Operating expenses** include rent, wages, utilities, insurance, and advertising. Adding their cost and markup is how they determine the **selling price** of an item. **Net profit** (aka **net earnings**) is markup (or gross profit) minus operating expenses.

We will see this general formula repeatedly.

Cost
+ Markup
Selling price

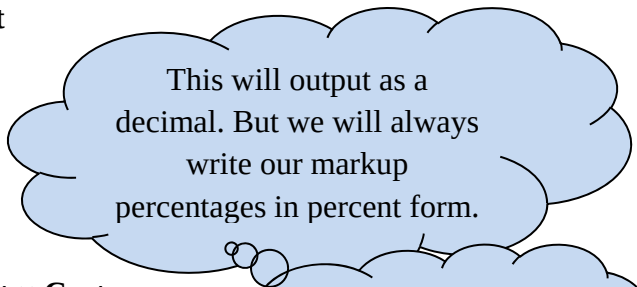


Markup will be given in dollars or as a percentage of the cost. In later sections, we will also see applications where markup is given as a percentage of the *selling price*.

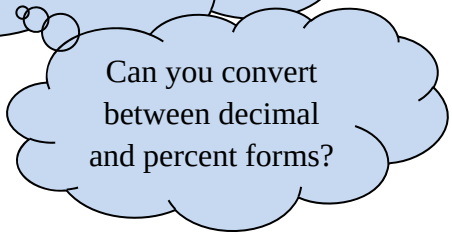
expl 1: If an item has a cost of $5 and the store wants $1.25 markup, how much should the item sell for?

We will be dealing with percentages a lot in these sections. You may remember the formula for percents as **Rate = Part / Base** (or perhaps as **Percent = Part / Whole**). If we take the markup (dollar) amount as the "part" and cost as the "base", we have the following formula.

Markup on cost = Amount of markup / Cost



Equivalently, **Amount of markup = Markup on cost × Cost**



Some people appreciate the table below to help organize the many bits of these problems. It uses the abbreviations C, M, and S for cost, markup, and selling price.

100%	C	_____
_____	M	_____
_____	S	_____

The horizontal line is like the equal sign in C + M = S.

The left column is for percentages. Since we are dealing with markup as a percentage of cost in this section, we have 100% next to the C. Cost is considered the "whole". However, in the next section, we will see that changes. The right column will have dollar amounts in it.

expl 2: Solve for the missing numbers. Markup is based on cost.

_____	C	_____
50%	M	$50.00
_____	S	_____

Recall, that C is considered to be the whole (100%).

Keep in mind that C + M = S.

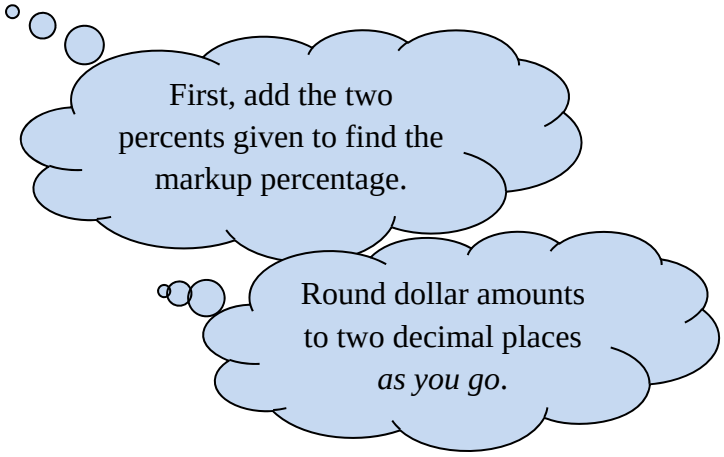
expl 3: Find the markup and selling price for the following item.

Cost price: $640.70
Percent markup on cost: 22.3%

They mean for us to find the *dollar amount* of the markup. If we know this is 22.3% of the $640.70, how do we figure it?

How do you figure the selling price?

expl 4: A bookstore pays $128.50 for a textbook. The bookstore has operating expenses of 25.4%. They also want a profit of 8.1%. Find the selling price per book and the total selling price of 50 books.



expl 5: Dick's Sporting Goods has a markup of $46.64 on golf clubs that sold for $222.64. Find the following. Round rates to the nearest tenth of a percent.

a.) Find the cost.

b.) Find the markup *percent* on cost.

c.) Find the selling price as a percent of cost.