Useful Retail Math

Markup vs Margin (they are not the same):

Markup is the percentage added to cost to determine the selling price, while gross **margin** is the percentage difference between the selling price and the cost, AKA the profit. For example, a 25% markup rate produces a gross margin percentage of only 20%. If you want to know what your profit will be on an item, you want to use margin not markup!

Other Terms & Formulas:

COGS: This stands for the Cost of Goods Sold.

Formula: COGS = beginning inventory + purchases - ending inventory.

Margin: The percentage of profit included in your selling price.

Formula: (Sales $ - COGS) / Sales $ = Gross Margin Percent; Sales $ - COGS = Gross Profit Dollars

- **Applied Margin:** The margin percent, including a "buffer" for shrink, which you apply to your cost to get your selling price.

- **Achieved (Actual/Realized) Margin:** The margin that you end up with after the product is sold. This will include discounting and shrink and can only be calculated after an inventory count. Knowing the difference between applied and achieved margin will allow you to better determine what your applied margin should be to make enough profit to sustain your department or store.

- **To determine an item's selling price:**

Retail Price = Cost / (100 - margin %).

Example: $.99 / (100 - 35%) = $1.52 (round to $1.49 for rounded selling price. Please see INFRA's Suggested Pricing Parameters document for more information on rounding selling prices)

- **To determine an item's margin percent:**

(Retail price – cost) / retail price = Gross Margin percent.

Example: ($1.52-.99)/ $1.52 = .35 (or 35% margin)

Growth: To determine year over year (over any time period) growth.

Formula: (this year's sales – last year's sales) / last year's sales.

Inventory Turns: How many times you sell through your inventory dollars in a year. The greater the number, the faster your inventory turns over throughout the year.

Formula: COGS (annualized) / average inventory.

Inventory Days: The average number of days that inventory is owned by the store before it is sold. The greater the number, the longer the product sits on the shelf.

Formula: 365 days / Inventory Turns

Turn x Earns: A key tool to monitor department performance. Tells you how many times a year you earn a net margin.

Formula: inventory turns x margin minus labor.

Labor as a Percent of Sales: The percent of your sales that goes toward labor costs. This should be calculated on a department basis since there can be a large variance between department labor costs.

Formula: Labor $/ Sales

Margin Minus Labor: The percent of revenue available to pay all other expenses, after paying for the cost of goods and gross wages. In addition to being a good profitability indicator, this ratio is also useful for comparing companies that have different product mixes. It is a better comparison than either margin or personnel expense alone.

Formula: Gross Margin - Labor as a Percent of Sales

Margin Minus Labor Plus Sale Growth: The percent of revenue available to pay all other expenses, after paying for the cost of goods and gross wages. Added to this is sales growth. In addition to being a good profitability indicator, this ratio is also useful for comparing companies that have different product mixes. It is a better comparison than gross margin, personnel expense, or growth rate alone. A company or department might have a low margin minus labor, but that might be compensated by a high growth rate (and vice versa).

Common Achieved Margins

Departments	**Margin %**	**Common Shrink %**
Grocery	38%	.5 - 1%
Produce	36%	3 - 5%
Bulk	38%	1 - 3%
Meat	25%	1 -5%
Dairy	27%	2-4%
Wellness	42%	1%
Deli	57%	3-7%