HOTEL AND RESTAURANT MANAGEMENT:

FOOD COST CONTROL BASICS

Your essential guide to Food, Beverage, and Labour Cost Control

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 SECTION 1: Basic Trade Calculations Review

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Part A: Food Cost Calculations
Part B: Metric/Imperial conversions
Part C: Standardized Recipes
Part D: Related Food Cost Percentage Calculations
Part A: Food Cost Calculations

Metric/Imperial Conversion Factors

VOLUME CONVERSION

1 fl oz = 28.4 ml
1 Gal (imp) = 4.5 L
1 Gal (US) = 3.6 L

WEIGHT CONVERSION

1 oz = 28.4 gr
1 lb = 454 gr
2.2046 lb = 1 kg

TEMPERATURE CONVERSIONS

C = (F - 32) * 5/9  alternate: C = (F - 32) ÷ 1.8
F = (C * 9/5) + 32 alternate: F = (C * 1.8) + 32

Recipe Conversions

Recipe conversion factor = desired yield / given yield
If the portion size changes, use the total yield.

Example:

Given yield is 35 portions of 185 gr and we desire 50 portions of 230 gr.

Conversion factor = (50 x .230) / (35 x .185)
Conversion factor = (11.50) / (6.475)
Conversion factor = 1.77606
Conversion factor = 1.78

Multiply each ingredient amount by the conversion factor to calculate the ingredient amount necessary for the new yield.

Yields Percentage and EP Costs

AP: As Purchased Portion
EP: Edible Portion
Percentage of yield = \(\frac{EP}{AP}\) x 100%

*Example:*
Percentage of yield = \(\frac{\text{Cooked weight}}{\text{Uncooked weight}}\) x 100%

**EP price = \(\frac{AP \times \text{cost}}{EP}\) or \(\frac{AP \text{ cost}}{yield \%}\)**

*Example #1:*
EP Price = \(\frac{5 \text{ kg} \times \$5.50}{\text{kg}}}{3.8 \text{ kg}} = \$27.50 / 3.8 \text{ kg} = \$7.24 / \text{kg}

*Example #2:*
EP Price = \$5.50 / \text{kg} / 76\% = \$7.24

**Yield required = Number of portions x portion size**

*Example:*
Yield required = 35 portions x 185 gr = 6475 gr = 6.475 kg

**Raw weight required = cooked (or trimmed) weight / percentage of yield**

*Example:*
Raw weight required = 6.475 kg / 75\% = 6.475 / .75 = 8.63 kg

**Ingredient Costing**
Ingredient cost = ingredient amount x purchase price per unit

**Portion Costing**
Portion cost = sum of amount costs / recipe yield (number of portions)
Total portion cost = portion cost + additional costs
Portion cost = Menu Price / Food Cost %

**Menu Price**
Menu price = total portion cost / food cost %

**Food Cost Percentage**
Food Cost % = \(\frac{\text{Portion Cost}}{\text{Menu Price}}\) x 100%
Part B: Metric/Imperial conversions

OBJECTIVE 1: Metric Measurements

Metric Measure of Weight:
grains (gr) and kilograms (kg or kilos)

1000 grams = 1 kilogram

so:
500 grams = .500 kilograms
50 grams = .050 kilograms

Metric Measure of Volume:
millilitres (ml) and Litres (L)
1000 millilitres = 1 Litre

so:
250 ml = .250 L, 25 ml = .025 L

Metric Measure of Temperature:
Degrees Celsius
Water freezes at 0 degrees Celsius
Water boils at 100 degrees Celsius
OBJECTIVE 2: Imperial Measurement Terms

Imperial Measure of Weight:
ounces (oz) and pounds (lb)

16 oz = 1 lb

Imperial Measure of Volume:
fluid ounces (fl oz) and Gallons - Imperial gallons (Imp gal) or US gallons (US gal)

where:
1 cup = 8 fl oz
1 pint (US) = 16 fl oz (2 cups)
1 pint (Imp) = 20 fl oz (2 1/2 cups)
1 quart = 2 pints (US quart = 32 fl oz; Imp quart = 40 fl oz)
1 gallon = 4 quarts (US gal = 128 fl oz; Imp gal = 160 fl oz)

It is particularly important to know the number of fluid ounces in both US and Imperial Gallons.

Imperial Measure of Temperature:
Degrees Fahrenheit
Water freezes at 32 degrees Fahrenheit
Water Boils at 212 degrees Fahrenheit
OBJECTIVE 3: Imperial to Metric Conversion

Conversion of Weight:
1 ounce = 28.4 grams
2.2046 pounds = 1 kilogram

Example

4 oz = ? gr
4 x 28.4 grams/oz = 113.6 gr = 114 grams (we have no way to measure parts of grams)

Example

35 pounds = ? kg
35 / 2.2046 = 15.876 kg (we can measure parts of kilograms)

Conversion of Volume:
1 fluid ounce = 28.4 millilitres

Example

10 fl oz = ? ml
10 x 28.4 = 284 ml

Example

2 Imp gal = ? Litres
2 x 160 ounces/ imp gal = 320 fl oz
320 fl oz x 28.4 = 9088 ml
9088 / 1000 ml / Litre = 9.088 Litres

Conversion of Temperature:
C = (F - 32) / 1.8

Test using what we know (boiling temperature of water)
C = (212 - 32) / 1.8 = 180 / 1.8 = 100 degree Celsius
OBJECTIVE 4: Metric to Imperial Conversions

Conversion of Weight:
28.4 grams = 1 ounce
1 kilogram = 2.2046 pounds

example
170 grams = ? ounces
170 / 28.4 = 5.99 ounces = 6 ounces (as we have no way to measure parts of ounces)

example
40 kg = ? pounds
40 x 2.2046 = 88.18 pounds

Conversion of Volume:
28.4 millilitres = 1 fluid ounce

example
750 ml = ? fluid ounces
750 / 28.4 = 26.4 fluid ounces = 26 fluid ounces

example
5 L = ? Imp gal = ? US gal
5 L x 1000 ml/L = 5000 ml
5000 ml / 28.4 ml/ fl oz = 176 fl oz

176 fl oz / 160 fl oz / Imp gal = 1.1 Imp gal
176 fl oz / 128 fl oz / US gal = 1.4 US gal

Conversion of Temperature:
F = (C x 1.8) + 32

Test using what we know (boiling temperature of water):
F = (100 x 1.8) + 32 = 180 + 32 = 212 degrees Fahrenheit
Part C: Standardized Recipes

OBJECTIVE 1: Uses and Limitations of Standardized Recipes

The advantages of standard recipes are:

- Cost Control
- Quality control (consistent quality)
- Quantity Control (consistent amounts)
- Cooks need less direct supervision
- Production planning and scheduling are easier

Disadvantages of recipes are:

- The time it takes to develop a good working recipe
- Staff perception of recipes (take too long, limited creativity)
- The time it takes to train staff to follow recipes exactly

Parts of a recipe are:

- Name
- Number of portions (yield)
- Portion size
- Ingredients and amounts (listed in order of use)
- Procedure
- Equipment required
- Cooking times and temperatures
- Serving and other directions
OBJECTIVE 2: Use of Judgment with Standardized Recipes

Even using the same recipe, different cooks may get different results. Cooks must use judgment when following recipes for three reasons:

- It can be difficult to provide exact directions. For example, season to taste: exactly how much is this? Simmer until tender: How do we measure tenderness? Beat until stiff - how stiff is stiff enough?
- Food products vary. Older beef may be tougher than younger beef, therefore tender will take longer to achieve. Tomatoes are riper at some times of the year or from some growing areas than from others.
- Equipment varies. For example, two different ovens both set at 350 degrees Fahrenheit may in fact be at different temperatures. The same oven may actually vary in temperature depending on barometric pressure. The cook needs to be able to use judgment on doneness of cakes and other goods.
OBJECTIVE 3: The Function of Standardized Recipes

The function of a recipe is to:

- Control Costs
- Control Quality (consistent results)
- Control Quantity (consistent yields)
OBJECTIVE 4: Increasing and Decreasing Recipes

We need to calculate a conversion factor for converting a recipe from the yield given to the yield desired.

The formula for the conversion factor (CF) is:

\[ CF = \frac{\text{desired yield}}{\text{given yield}} \]

**Example**
We have a recipe that produces 25 portions of chicken pot pie and we need a recipe that produces 45 portions.

\[ CF = \frac{45}{25} = 1.80 \]

**Conversion Factors should be taken to 2 decimal places.**

The amount of each ingredient in the recipe is then multiplied by the Conversion Factor to get the amount required for the new recipe.

**Sometimes we need to change the size of the portions as well as the number of portions. To do this, we need to calculate the TOTAL yield of the recipe.**

\[ CF = \frac{\text{Total desired yield}}{\text{Total given yield}} \]

**Example**
The chicken pot pie recipe produces 25 portions of 200 ml. We need a recipe that produces 45 portions of 170 ml.

\[ CF = \frac{(45 \times 170)}{(25 \times 200)} = \frac{7650}{5000} = 1.53 \]

The amount of each ingredient in the recipe is then multiplied by the Conversion Factor to get the amount required for the new recipe.
Part D: Related Food Cost Calculations

OBJECTIVE 1: Terminology

*Discount:* A certain sum (dollar) deducted from the price of goods sold.

*List price:* The price of the suppliers list.

*Net price:* Price after all deductions.

*As Purchased product:* A product as purchased (unprocessed)

*Edible Product:* The edible product (edible portion after trimming, shrinkage and cooking)

*Percent yield:* The edible portion as a ratio of the as purchased amount

*Portion size:* The size of a portion to be served (i.e. weight or volume)

*Number of Portions:* The number of portions yielded from a certain weight, volume or recipe.

*Portion Cost:* The dollar value of a portion to be served.

*Food Cost Percentage:* A ratio comparing the cost of food sold to food sales

*Menu Price:* The price the consumer pays for a menu item
OBJECTIVE 2: Price of Product As Purchased

_The amount of the ingredient purchased times the purchase price = the cost of the product._

Example

Chicken: we purchased 15 kg of chicken at a price of $2.75 per kg.
15 kg x $2.75 per kg = $41.25 total cost of the chicken.
OBJECTIVE 3: Yield and Cost of Edible Product

*Formula* Yield% = (EP / AP) x 100%

*Example #1*

A strip loin weighs 5.2 kg AP and after trimming weights 4.6 kg (EP). Calculate the Yield percentage.

\[
Y\% = \left(\frac{EP}{AP}\right) \times 100\%
\]

\[
Y\% = \left(\frac{4.6}{5.2}\right) \times 100\%
\]

\[
Y\% = 88.5\%
\]

*Example #2*

The strip loin in example #1 costs $11.95 / kg to purchase. What is the cost per kilogram of the trimmed strip loin?

There are 2 methods to find this answer:

a) Using the figures for the strip loin we have

\[
5.2 \text{ kg} \times \$11.95 / \text{kg} = \$62.14
\]

so the strip loin cost us $62.14 to purchase. The amount of useable strip loin is 4.6 kg

\[
\frac{\$62.14}{4.6 \text{ kg}} = \$13.51 / \text{kg EP}.
\]

b) We don't want to do a test every time the price changes. Since we know the yield percentage is 88.5%, we can use this.

\[
\frac{\$11.95}{88.5\%} = \$13.51 / \text{kg}
\]

*Example #3*

We want to serve 85 people steak sandwiches weighing 170 grams each. How much strip loin do we need?

a) Calculate the total amount of trimmed strip loin (EP weight) required:

\[
85 \text{ portions} \times 170 \text{ grams / portion} = 14.45 \text{ kilograms minimum weight required.}
\]

b) the EP weight will be 88.5% of the AP weight (using our yield percentage)

\[
14.45 \text{ kg} / 88.5\% = 16.33 \text{ kg}
\]

If we have less than 16.33 kg of strip loin, we won't have enough
OBJECTIVE 4: Number of Servable Portions

The AP weight time the yield percentage = the EP weight

The EP weight divided by the portion size in kg = the number of portions but we cannot serve part portions.

*Example*

A Prime Rib weighs 4.3 kg. As Purchased and yields 85% of useable (EP) roast. How many portions of 170 grams can we serve?

\[
4.3 \times 85\% = 3.655 \text{ kg EP} \\
3.655 / .170 \text{ kg} = 21.5
\]

But we cannot serve .5 portions so we have 21 portions available for service.
OBJECTIVE 5: Cost of Ingredients

Formula: Ingredient amount x Edible Product Price = Ingredient cost

This ingredient cost is called the *extension*.

**Example #1**

Chicken: 2.5 @ $2.75/kg
2.5 kg x $2.75/kg = $6.875 = $6.88

**Example #2**

Onion: 250 gr @ $0.65/kg
250 gr x $0.65/kg *but* we cannot multiply grams and kilograms
so .250 kg x $0.65/kg = $0.1625 = $0.16

**Example #3**

Oil: 125 ml @ $12.45 / 16 Litre pail
.125 L x $12.45 / 16 L

to keep the same units on both sides, find the cost per Litre
.125 L x $0.77813 / L = $0.09727 = $0.10

**Example #4**

Pepper: 30 gr @ $3.15 / 100 gr
30 gr x $3.15 / 100 gr = 30 gr x $0.0315 / gr = $0.945 = $0.95
**OBJECTIVE 6: Recipe and Portion Cost**

**Formula**

Portion Cost (PC) = Menu Price (MP) x Food Cost Percentage (FC%)

PC = MP x FC%

**Example**

The daily special sells for $5.95 and we want to have a 36% Food Cost. How much does the special cost to produce?

\[
\text{PC} = \text{MP} \times \text{FC}\% \\
\text{PC} = 5.95 \times 36\% \\
\text{PC} = 5.95 \times 0.36 \\
\text{PC} = 2.14
\]

**Procedure for Calculating Recipe Costs**

1. Calculate *extensions* for all ingredients (objective 6).
2. Add all ingredient costs to find the total recipe cost.
3. Divide by the recipe yield (number of portions) to get the cost of one portion.

**Example**

Chicken Pot Pie Yield: 5 portions

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
<th>@</th>
<th>EP Price per unit</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>1.5 kg</td>
<td>@</td>
<td>$2.75 / kg</td>
<td>$4.13</td>
</tr>
<tr>
<td>Onions</td>
<td>120 gr</td>
<td>@</td>
<td>$0.65 / kg</td>
<td>$0.08</td>
</tr>
<tr>
<td>Butter</td>
<td>220 gr</td>
<td>@</td>
<td>$5.95 / kg</td>
<td>$1.31</td>
</tr>
<tr>
<td>Flour</td>
<td>220 gr</td>
<td>@</td>
<td>$22.00 / 40 kg</td>
<td>$0.12</td>
</tr>
<tr>
<td>Milk</td>
<td>2.5 L</td>
<td>@</td>
<td>$15.65 / 20 L</td>
<td>$1.96</td>
</tr>
</tbody>
</table>

Total Recipe Cost = $7.60

Portion Cost = $7.60 / 5 portions = $1.52 / portion

**NOTE:** before we can actually calculate Menu Prices or Food Cost Percentages, we will need to add the cost of any additional foods served such as French fries, vegetables, buns & butter, garnishes, etc.
OBJECTIVE 7: Calculate Menu Prices

Formula

Menu Price (MP) = Portion Cost (PC) / Food Cost% (FC%)
MP = PC / FC%

Example

A portion of chicken pot pie costs $2.13 to produce including the cost of additional foods such as French fries and vegetables. We want to have a 38% food cost. What should the menu price be?

MP = PC / FC%
MP = $2.13 / 38%
MP = $5.61

We would sell the chicken pot pie for $5.61.
OBJECTIVE 8: Food Cost Percentages

Formula
Food Cost% (FC%) = \[\text{Portion Cost (PC)} / \text{Menu Price (MP)}\] \times 100%
FC% = (PC / MP) \times 100%

Example
Chicken Pot Pie costs $2.13 to produce including the cost of accompaniments such as French fries and vegetables. The Menu Price is $5.95. What is the Food Cost Percentage?

FC% = (PC / MP) \times 100%
FC% = ($2.13 / $5.95) \times 100%
FC% = 0.3579 \times 100%
FC% = 35.8%
SECTION 2: Purchasing

OBJECTIVE 1

*When you complete this objective you will be able to...*

Define purchasing.

**Learning Activity**

*Complete each of the Activities listed below:*

In your notes:

- Discuss the importance of purchasing.
- Consider the role of purchasing in customer satisfaction.
- How does purchasing relate to profit?

**Learning Material**

- Approximately 30% to 40% of the expenses in a food operation go to paying for the food purchased. This makes purchasing a critical activity for the kitchen manager.
- Purchasing requires determining the standards (purchase specifications) for the products to be procured as well as getting the right amount from the right supplier at the right price and time.
- Failure to do any of these may mean having too much product or too little. The product purchased may not be the optimal product for the operation and its customers. The operation may not be making the optimal amount of profit because it has paid more than necessary for the products that have been received.
OBJECTIVE 2

*When you complete this objective you will be able to...*

Discuss purchasing objectives.

**Learning Activity**

*Complete each of the Activities listed below:*

In your notes, answer the following questions:

- How does buying differ from purchasing?
- What needs to be done before an order can be placed?

**Learning Material**

- Webster's dictionary defines buying as "to get by paying money, purchasing."
- Jack Ninemeir defines purchasing as "the series of activities designed to obtain products of the right quality and quantity at the right price and time and from the right source."
  (Planning and Control for Food and Beverage Operations)
- Clearly, there is more to purchasing effectively than simply paying for product. Ninemeir indicates that we must be very specific exactly what it is we need and how much. We need to look at which is the best supplier for the product and what price is most appropriate. Note that the lowest price is not always the most appropriate price. We'll look at that in the next module.
OBJECTIVE 3

When you complete this objective you will be able to...

List tasks and duties of the purchaser.

Learning Activity

Complete each of the Activities listed below:

In your notes:

- Discuss each of the 5 "rights" in the learning material.
- How does the kitchen manager determine what is the right quality? What key resource does s/he use?

Learning Material

The goals of purchasing are:

a) to get the right quality of product
b) to get the right quantity (amount) of product
c) at the right price
d) from the right supplier
e) at the right time
OBJECTIVE 4

*When you complete this objective you will be able to...*

Discuss purchase specifications.

Learning Activity

*Complete each of the Activities listed below:*

- In the resources, find definitions of quality.
- Find definitions of purchase specifications.
- Consider the value of purchase specifications for placing and receiving orders. What might happen if specifications are not identified for products when an order is placed?
- Provide complete purchase specifications necessary for purchasing the following items:
  - milk
  - shrimp
  - strip loins
  - ketchup
  - peaches

What is the difference between a purchase specification, a purchase order and a purchase requisition.

Learning Material

1. Trade or Common name of product (Brand Name, Cut, etc.)
2. Quantity requirements: (Case, Kilo, Carton, etc.)
3. Federal Grade: (A1, Grade A etc.)
4. Unit on which prices are based: (Kilo, dozen, Litre etc.)
5. Size of the container: (40 kg bag, 20 L pail, etc.)
6. Pieces per shipping container: (6 by 2.84 Litres, 12 by 5 oz bottle etc.)
7. Trim or Yield: (0 x 1 trim etc.)
8. Type of food: (e.g., milk fed veal)
9. Variety: (Granny Smith, Thompson seedless etc.)
10. Form: (French cut, Sliced, Halves, etc.)
11. Syrup density: (light, in pear juice, etc.)
12. Container: (Can, Jar, Pail etc.)
13. Percentage: (e.g., 2% milk)
14. Cut: (Chop, Prime Rib, etc.)
15. Condition upon receipt: (Frozen, Fresh, etc.)
16. Point of Origin: (Malpeque oysters, Maine Lobster, New Zealand Lamb, etc.)
OBJECTIVE 5
When you complete this objective you will be able to...

Discuss the Minimum/Maximum or par stocking system.

Learning Activity

Complete each of the Activities listed below:

In your notes, answer the following questions:

- What problems occur if a product is short stocked (that is if you run out of a product)?
- How might the kitchen manager rectify a product shortage situation? What disadvantages are there with these solutions?
- What problems occur if a product is over stocked?
- How might the kitchen manager rectify an over stocking situation? What disadvantages are there with these solutions?

Learning Material

- A min/max or par stocking system is used to determine the minimum and maximum levels of product that should be in stock at any time. It is possible to determine a reorder point where more product needs to be ordered.
OBJECTIVE 6

When you complete this objective you will be able to...

Explain how the purchaser can predict needs.

Learning Activity

In your notes, complete each of the Activities listed below:

- Explain how the kitchen manager determines how much of a product to order.
- In what way does the weather affect business volume? Would this be the same for all food operations?
- What affect do special events have on expected volume?
- Will the weather or special events have any effect on menu mix?
- Explain how historical records can be used for menu planning.

Learning Material

Historical records are kept of business volume and the sales of individual menu items.

For example:

Monday, October 20, 1997    weather: sunny but cold    special events: none

<table>
<thead>
<tr>
<th>Item</th>
<th>No. Sold</th>
<th>MM%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Rib</td>
<td>85</td>
<td>40.5%</td>
</tr>
<tr>
<td>NY Steak</td>
<td>42</td>
<td>20.0%</td>
</tr>
<tr>
<td>Salmon</td>
<td>18</td>
<td>8.6%</td>
</tr>
<tr>
<td>Chicken</td>
<td>27</td>
<td>12.9%</td>
</tr>
<tr>
<td>Lamb</td>
<td>38</td>
<td>18.1%</td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>100%</td>
</tr>
</tbody>
</table>

MM% means Menu Mix percentage or Popularity Index

If each Monday for the last 6 weeks we averaged 195 customers, we can expect somewhere near that amount next Monday.
SECTION 3: Suppliers

OBJECTIVE 1

*When you complete this objective you will be able to...*

List factors to consider in selecting a supplier

Learning Activity

*Complete each of the Activities listed below:*

*In your notes:*

- List several factors you feel to be important in a supplier.
- Rank them in order of importance.

Learning Material

- It is difficult to find a supplier that satisfies all your needs. These needs include more than the 5 goals we looked at in the purchasing module. One of the most important things for me is reliability. After putting considerable effort into determining the right product, etc. I need to be sure that my supplier will deliver just what I ordered, when I expect it, at the price we agreed upon.

- There are a number of other factors you might consider to be important as well.
OBJECTIVE 2

When you complete this objective you will be able to...

List sources of information to be considered

Learning Activity

Complete each of the Activities listed below:

In your notes, answer the following questions:

- List sources of information about suppliers. Feel free to discuss this with other class members through Computer Conferencing.

Learning Material

- Trade shows are one great way to find out about suppliers and what they carry. The purchaser can discuss particular suppliers with other chefs in the local chefs’ group, like the Calgary Academy of Chefs and Cooks.
OBJECTIVE 3

*When you complete this objective you will be able to...*

Discuss difficulties limiting selection.

**Learning Activity**

*Complete each of the Activities listed below:*

*In your notes:*

- Consider problems with having too many or too few suppliers.
- Can one supplier always have the best quality at the best price? What happens if the one supplier can't meet your needs?
- Can an operation have too many suppliers? Consider the concept of purchasing or buying power.
- How can you decide on the optimum number of suppliers?

**Learning Material**

- Some operations may use only one supplier, some may use a number of suppliers. Whether one is enough or more than one supplier should be used needs to be determined by the purchaser.
SECTION 4: Purchase Pricing

OBJECTIVE 1

*When you complete this objective you will be able to...*

Define value.

Learning Activity

*Complete each of the Activities listed below:*

*In your notes:*

- Is the best price always the lowest price?
- Review the learning materials to see how the Yield Percentage relates to value.
- Does Product B in the example provide the best quality? Why or why not?

Learning Material

- The chef wishes to buy canned tomatoes at the best value. S/he is looking at two brands of canned tomatoes, Product A and Product B, both pack in cases of 6 by 2.84 Litre cans. To determine value of two products, s/he performs the following yield tests and $EP calculations:

**Product A:**

- Case price is $11.75 per case or $1.96 per tin.
- The chef drains the tin and gets 1.14 Litres of tomatoes & 1.70 Litres of juice
- The Yield Percentage equals $1.14 / 28.4 = 40\%$
- The cost of the tomatoes is $\$1.96 / 40\% = \$4.90$ per tin
**Product B:**

Case price is $14.35 per case or $2.39 per tin.

Draining the tin yields 1.70 Litres of tomatoes and 1.14 Litres of tomato juice.

The Yield Percentage = \( \frac{1.70}{2.84} = 60\% \)

The cost of the tomatoes is $2.39 \( \times \) 60\% = $3.99 per tin.

Even though Product B appears to cost more, it is the better value when the Edible Product is taken into account.

In order for Product A to be equivalent value, we need to consider the best EP price (Product B) and the Yield Percentage of Product A.

\[
\text{$AP$ (As Purchased) = \frac{3.99 \text{ (price of Product B)}}{40\% \text{ (Yield of Product A)}} = \$1.59 \text{ per tin}}
\]

or $9.57 per case ($1.59 \times 6 \text{ cans per case})
OBJECTIVE 2

When you complete this objective you will be able to...

Discuss negotiation with the vendor

Learning Activity

Complete each of the Activities listed below:

- What basis might you use to negotiate lower prices with a vendor? Consider at least 4 rationale (for example, another supplier has the same product at a lower price).
- Is it possible to use lower grade products without sacrificing quality? Think of at least one example where this could be done.
- If the vendor makes deliveries twice per day at your establishment, is s/he as likely to give you the same prices as if s/he comes once per day, or every second day?
- Many products can be purchased at a lower price if you buy more than a minimum number. French fries are an example, the price per case for ten or more cases is lower than the price per case for fewer than ten. Ask a food service supplier or purchaser for 3 other examples.
- Why might a vendor give better prices to an operation paying their bills on time over one that is chronically late?
- List 5 sources a chef could consult to find out about price trends.
- How do vendors let the chef know about promotional items? How can the chef take advantage of the promoted items if they are not on the menu?

Learning Material

Reduce Prices While Maintaining Quality

- Negotiate with the vendor
- Consider lower quality or grade of products.
- Evaluate whether the product is required.
- Combine shipments.
- Purchase in larger quantities
- Pay bills as early as possible (consider C.O.D.)
- Evaluate price trends.
- Take advantage of promotional reductions in price.
SECTION 5: Receiving

OBJECTIVE 1

When you complete this objective you will be able to...

List receiving requirements

Learning Activity

Complete each of the Activities listed below:

In your notes:

- Check with a number of resources to answer the following:
- Who should be responsible for receiving in an operation?
- What qualifications does a receiver need?
- What equipment is necessary to receiving?
- How can poor receiving practice cost the operation money?

Learning Material

- Receiving can be as simple as signing the invoice when the product arrives. This approach leaves the operation in the position of getting the wrong product, getting poor quality product or possibly not getting the product at all.
- The person doing the receiving needs to be able to identify purchase specifications in products being delivered. There is little point in ordering by purchase specification if the receiver isn't aware of those specs and ensures they are met.
- An operation without a receiving scale, or a scale that isn't being used, is an invitation to theft.
OBJECTIVE 2

When you complete this objective you will be able to...

Discuss the receiving process

Learning Activity

Complete each of the Activities listed below:

In your notes, answer the following questions:

- Consider each of the 6 goals given in the learning material, briefly explain how the receiver ensures that the goals are met.

Learning Material

Receiving Goals
The receiver must ensure:

- The correct product has been sent
- The purchase specifications are correct
- The correct price has been charged
- The delivery matches the invoice
- The delivery matches the purchase order
- The totals are correct
OBJECTIVE 3

When you complete this objective you will be able to...

Discuss receiving documents

Learning Activity

Complete each of the Activities listed below:

In your notes:

In your notes, explain the function of each of the following:
- Purchase order
- Invoice
- Credit memo
- Receiver's Daily report
OBJECTIVE 4

When you complete this objective you will be able to...

Discuss the use of credit memos

Learning Activity

Complete each of the Activities listed below:

- What circumstances might require product to be returned to the vendor?
- Why does the receiver need to fill out a credit memo when product is returned?
- What should be done if the delivery person doesn't have a credit memo book?
SECTION 6: Stock Management

OBJECTIVE 1

When you complete this objective you will be able to...

Discuss the objectives of stock management.

Learning Activity

Complete each of the Activities listed below:

In your notes:

• List and discuss the reason for managing stock.

Learning Material

• Stock management needs to be designed so as to reduce loss due to theft, spillage and spoilage.
• Theft is premeditated burglary such as pulling a truck to the back door to empty fridges. Storage needs to be designed so as to keep employees honest. Francis Bacon noted that “opportunity makes a thief” so we need to make theft more difficult through the use of locks, clear visibility of storage areas and limiting access to only those who need access. A significant portion of missing inventory comes from employee theft.
• Pilferage is petty theft of small items such as steaks or cake. Grazing and skimming can become a noticeable loss - possibly as much as 8% of revenue according to Purchasing by Feinsein and Stefanelli.
• Avoid loss due to spoilage by adhering to good sanitation practice such as FIFO or First In, First Out and time and temperature controls. Review HACCP for more detailed discussion.
OBJECTIVE 2

When you complete this objective you will be able to...

Identify storage requirements.

Learning Activity

Complete each of the Activities listed below:

In your notes, answer the following questions:

- Analyze storage in one or more operations you are familiar with. How well did the operation meet storage requirements and what, if anything was lacking?

Learning Material

- Adequate space
- Adequate time and temperature controls
  - should be monitored regularly - at least every shift
- Adequate equipment
  - shelving, covered containers, hand trucks as appropriate
- Proximity to receiving and production
  - ease of storage and access
  - security
- Adequate maintenance.
  - remember maintenance is almost always cheaper than repair, not to mention the cost of lost product
OBJECTIVE 3

When you complete this objective you will be able to...

Discuss storage management practices.

Learning Activity

Complete each of the Activities listed below:

In your notes:

• In the operations you looked at in objective 2, discuss how the operation dealt with security issues. How was product protected and tracked?

Learning Material

Security

• Limit access to only those with need and authorization. Front end staff should have no access to fridges and freezers any more than cooks have access to liquor storage areas. All storage areas must be locked when not in use and employees should be allowed to enter/exit through only one door where possible, preferably not the kitchen.

• The duty manager or chef should watch staff take out the garbage. Clear plastic bags are a good, further precaution. Take care regarding backpacks and large purses etc. that can be used to carry out products.
**Managing storage**

- Product will be easier to manage with systematic organization of goods. Not only will it be easier to keep track of what should be there but the product will be fresher and used more quickly if it is stored and managed in a systematic manner. It’s been said that the storage areas of a kitchen are to the chef what a vault is to a banker. Never forget that food and other products are money and need to be managed as such.

- Keep track of usage to determine whether levels are appropriate. Too much product accumulating means loss of quality and ties up cash flow. It also makes theft more appealing as there seems to be too much and it’s too hard to keep track. Monitor usage rates through sales and historical records relative to what has actually been used.

- Bin Cards are a good way to keep track of what is in stock and what should be there. The chef/manager can compare daily usage against sales to determine whether product is accounted for. Discrepancy between the bin card and product sold needs to be accounted for.

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SECTION 7: Labour costs

OBJECTIVE 1

When you complete this objective you will be able to...

Discuss costs associated with labour costs.

Learning Activities

Complete each of the Activities listed below:

- List costs associated with staffing.

Learning Material

Labour costs are any costs associated with staffing. These include the host or hostess that greets the customer, the servers, cooks, bus people, dish and pot washers, the chef and sous chef, the dining room manager and the owner. Labour costs include wages and salaries, Employment insurance contributions, WCB contributions and any benefits afforded to employees such as supplied uniforms and cleaning, medical or dental plans and staff meals which are a taxable benefit according to Revenue Canada.
OBJECTIVE 2

When you complete this objective you will be able to...

Discuss the importance of labour cost controls.

Learning Activity

Complete each of the Activities listed below:

- Discuss each of the points identified in the learning material below.

Learning Material

- Food and beverage service is highly labour intensive.
- High reliance on entry level positions.
- Many staff are transitory, short timers.
  - only working until . . .
- Labour is one of the higher costs in the operation
OBJECTIVE 3

When you complete this objective you will be able to...

Discuss optimum labour cost parameters.

Learning Activity

Complete each of the Activities listed below:

- Discuss issues that might arise from having too few or too many staff. Likewise with under skilled or over skilled employees. How do you decide what is the optimum number and skill level of employees? Is it always desirable to have low labour costs?

Learning Material

- Consider the number of employees on staff at any given time. Too few employees may mean poor customer service and increased customer complaints. While the operation might be saving in labour costs, the customers may not be getting the service they expect. Many customers don't complain, they just don't come back. They do complain to their friends and acquaintances however. As well, having too few staff is likely to lead to increased errors and wasted product. Too many employees on the other hand may result in the same problems. If there isn't enough to do, employees may well slack off and get involved in other things, leaving customers without satisfactory service. Production errors are just as likely to occur if staff aren't busy enough to stay focused.

- We need to look at the skill levels of employees as well. If staff are under skilled, their pay rate is lower but there may be increased errors and problems with customer service as well. This can be compensated for to a great extent through the use of pre-prepared products but these may not be suitable for all establishments. Over skilled staff can lead to problems with production and consistency as well as each staff member may have his own idea on how the menu items should be prepared and served. These opinions may lead to stress, resentment or even open conflict. If everyone on staff is over skilled, it might be difficult to get anyone to do the "scut" work - the menial, tedious jobs that are generally reserved for new, unskilled workers. As well, highly skilled staff expect to be compensated accordingly, and rightly so. However the labour costs will obviously be higher as a result.

- The number and skills required are a function of the volume of business and the complexity of the menu. Clearly more staff are scheduled for a busy Saturday night than for a slow Monday and small operations will need fewer staff than large ones. Simple menus and those that rely on pre-prepared convenience foods can be managed by low level employees but more complex cuisine requires higher skill levels.
OBJECTIVE 4

When you complete this objective you will be able to...

Investigate factors affecting job performance.

Learning Activity

Complete each of the Activities listed below:

- Consider a place you have worked. Discuss whether you consider staffing to be appropriate and why (or why not).

Learning Material

- Consider the staffing needs for your current place of employment or one you have worked in recently. List the jobs and skills required for both volume needs and menu needs. Do a job analysis, breaking the menu down into tasks and subtasks. By doing this, you make it clear what skills are required. A review of Job Descriptions may be useful. It can be useful to do a time analysis for the operation, making note of how many customers are in and at what times. This can help determine whether you have enough or too many people on staff at any given time. Perhaps you have a full staff during a slower period but many of them are busy doing prep for later, busier periods. Or perhaps you simply don't require that many people.
OBJECTIVE 5

*When you complete this objective you will be able to...*

Investigate methods for reducing labour costs.

**Learning Activity**

*Complete each of the Activities listed below:*

- Do a Job Analysis for one station in your operation. Try writing a schedule for one week for that station using made up names. Try to make sure you have the appropriate number of people and skills.

**Learning Material**

- A job description is to managing people what a recipe is to managing food - you can do without it but it’s much easier and more likely to be successful if you have one. A job description is about what is to be done, how it is to be done and what standards are to be maintained. However it is about the job not about the person doing it so job descriptions are not about money. You develop a job description with input from the people doing the job to be sure that it has some validity. Whenever a job becomes vacant, review the job description. You may choose to revise it before restaffing that position, giving more or fewer duties or even deciding the job doesn't need to be filled at all based on changing requirements.

- Scheduling is an important function of the chef or kitchen manager. If it’s done poorly, you may have too many or too few staff with the wrong levels of skills. Employees are much happier if they know well in advance what their schedules are and when they have time off. You will spend a great deal less time scrambling to find staff at the last minute if sufficient time and effort are spent in advance making sure you've got it right. Consider the use of part time staff and casual staff when appropriate to fill in for busy periods. It may be appropriate to schedule split shifts for some staff members depending on your needs and their willingness to do so.
Job performance is influenced by a great many factors such as:

- Menu items
  - difficulty and complexity of preparation
  - the number of items
- Convenience foods
  - consider the time and skills required to make it yourself versus the cost
- Service style
- Quantity (volume) of meals
- Number of meal periods
- The layout and design of the operation
- Production equipment
- Labour market
  - the availability of staff, especially skilled workers.
- Supervision and management style and motivational techniques
- the Worker
  - efficiency is affected by experience, ability and attitudes
- the work environment
  - comfortable atmosphere and morale
- the number of hours and days worked
  - are staff sufficiently rested or near burn-out?
- Training
- Relationships with management and coworkers.
- Time pressures
- Personal & health concerns.

Methods for reducing labour costs

- address factors affecting job performance
- consider staffing levels during peak and slow times
- lowering wages
- cutting staff
- cutting hours
- consider an appropriate blend of skilled and unskilled labour
- consider the use of full time and part time staff.
SECTION 8: Team concepts

OBJECTIVE 1

When you complete this objective you will be able to..

- Discuss what we mean by teamwork.

Learning Activity

Complete each of the Activities listed below:

In your notes:

Write a paragraph or two explaining how a sports team achieves the goal of winning games.

Learning Material

- A team is a group of people working together to achieve a common goal. Teamwork is the process of working as a team. For a team to be functional then, they must know what the goal is and buy into its importance. As well, they need to realize their interdependence in order to attain that goal. Without interdependence and a clearly defined, agreed upon goal, the team cannot succeed.
OBJECTIVE 2

*When you complete this objective you will be able to...*

- Discuss why teamwork is important.

**Learning Activity**

*Complete each of the Activities listed below:*

**In your notes:**

- Consider places you may have worked where teamwork is common and compare that against places where people do not work together. How did quality and enjoyment of work differ?

**Learning Material**

- Lessens stress
- More efficient results
  - Less work
  - Higher quality
  - Less waste
  - Faster
- More enjoyable work – better atmosphere
OBJECTIVE 3

*When you complete this objective you will be able to...*

Discuss how to achieve teamwork.

**Learning Activity**

*Complete each of the Activities listed below:*

**In your notes:**

- List things that you think make a team successful. Discuss why you think each is important.

**Learning Material**

- In order for teamwork to happen, everyone needs to know what the goal of the team is and buy into its importance. While it may seem obvious that customer satisfaction is paramount, day-to-day concerns can easily overshadow that most important of goals. Customer service must be modeled by management and be the clear goal for all staff. If we assume it is understood, it probably won't be. The job of management in the organization is to be sure that everyone knows what the goals are, all the time. If we hire the right staff and train them properly, it is more likely that all staff will buy into the importance of customer service. Staff that place other concerns ahead of the companies goals need to be re-educated or replaced.

- Clearly defined duties for all staff make it easier for them to know what is expected of them. Job descriptions help staff by clarifying for them what they are expected to do. Supervision is required to be sure that each employee is doing their jobs effectively. As well, everyone is expected to help everyone else. The most powerful message the chef can send in this regard is to model teamwork. He needs to help anyone who needs it and encourage others to do the same. If the chef is seen helping the dishwasher when necessary, the rest of the staff will soon realize that they can help too. The realization of their interdependence is critical to effective teamwork.

- Clear lines of authority make teamwork easier as well. Nothing is more frustrating to a worker that to be told to do something 2 or more different ways by a number of chefs, chefs de partie and managers unless it is working without direction, trying to guess what is expected of them.
OBJECTIVE 4

*When you complete this objective you will be able to...*

Analyze what to do if teamwork fails.

**Learning Activity**

*Complete each of the Activities listed below:*

*In your notes:*

- Considering an operation you have worked at, make a list of the things that are happening that encourage teamwork and the things that work against teamwork. Identify possible solutions to remove the barriers to teamwork.

**Learning Material**

- If you think that someone is not doing their job, be sure that it is their job to do and that they haven't been pulled off that job to do another.
- Don't be concerned with blame. The job comes first.
- Remember - everyone will get what's coming to them eventually. Don't waste time being concerned about others outside your control.
- Look for a win/win solution
- Discuss problems calmly, seeking a solution, not to place blame.
- Emphasize the goal to the team and reinforce the value of working together.
- Don't forget that other areas in the operation are part of the larger team - for example the servers.
OBJECTIVE 5

_When you complete this objective you will be able to..._

Briefly explain the TQM concept.

Learning Activity

_Complete each of the Activities listed below:_

_In your notes:_

Write a short essay explaining why you think TQM works or doesn't work.

Learning Material

- Total Quality Management or TQM is a management philosophy developed by W. Edwards Deming that revolutionized traditional management style. Deming claims management's focus needs to be on the customer and every process has internal as well as external customers. Everything must be geared towards increasing customer satisfaction.

- In a dining facility, the diners are the obvious customer. However, the kitchen has internal customers as well - the servers. The food produced has to satisfy the needs of the servers in order for them to be able to satisfy the needs of the guests. The direct customer for the dishwasher will be the cooks, the servers and ultimately the guests.

- Deming strongly emphasized the importance of involving the people doing the work in the quality improvement process. They are closer to the situation than anyone and need to be involved in decisions that affect their performance and their ability to provide customer service. Fully understanding and implementing TQM can be a large task but the philosophy is fairly simple - focus on improving product quality and customer service and give staff the tools, ability and authority to do the job.
SECTION 9: Communication

OBJECTIVE 1

*When you complete this objective you will be able to...*

Examine the process for effective communication.

**Learning Activity**

*Complete each of the Activities listed below :*

**In your notes:**

- Consider a situation where you need to communicate important information to someone you just met or don't know very well. Perhaps directions for a stranger to somewhere. What things do you need to consider to communicate effectively?

**Learning Material**

- “I know you believe you understand what you think I said but I am not sure you realize that what you heard is not what I meant."
- When you communicate, you need to convey your thoughts to someone else. The process can be somewhat complicated.

And while all of this is going on, you are doing the same to communicate with me. Often at the same time.

On the right is a diagram illustrating how other’s interpret messages.
OBJECTIVE 2

When you complete this objective you will be able to...

Examine blocks to effective communications.

Learning Activity

Complete each of the Activities listed below:

In your notes, answer the following questions:

- Small wonder there are difficulties communicating given the complexity of the process. Consider again situations where you may have had difficulty communicating. How might the blocks discussed here have contributed to that difficulty? What might you have done differently to alleviate the situation?

Learning Material

- When communicating remember we have differing backgrounds, education, levels of intelligence and experience. Communicating the process for a new dish will be different when communicating with a lay person than with a journeyman cook. Likewise, people have differing attitudes, opinions and values. What matters to me will affect how I perceive what someone communicates. Perhaps what they conceive as critically important is of no matter to me, or I assume that something is of overriding importance when the other person never considered it.

- We all have our prejudices or preferences if you will. I might prefer cooking eggs in a pan while another prefers to use a griddle. If I don't communicate my preferences, it's reasonable that the other person might assume I meant him to use the equipment he prefers. Note, by prejudice I'm not referring to bigotry or intolerance, simply that which I prefer or like better than something else.

- We have different perceptions as well. For example, season to taste will mean different things to different people. Likewise, asking if a curry is hot (spicy) will get different answers depending on the respondent's capacity for spicy foods. We also have different assumptions and expectations, complicated by the fact that words often have more than one meaning depending of context. For example, a bain marie is either a water bath for keeping food hot, or an insert that sits in it.

- If the person I'm communicating with is otherwise engaged, whether focused on a favourite TV show or busy prepping meals on the line during service, her attention is on what she is doing rather than what I'm saying. I must first make sure I have her attention or pick another time when she is free to give me her attention. Likewise, I need to choose the appropriate medium or method for communication. In some cases, verbal direction or communication is most appropriate while others require printed text, or pictures or some other approach. Involved, complicated directions are probably best given in writing rather than orally. Coupling the written communication with demonstrations is probably even more
effective. However, that isn't likely necessary when explaining to the individual where he will find the spices.
OBJECTIVE 3

*When you complete this objective you will be able to...*

Discuss effective communication techniques for listening and communicating.

**Learning Activity**

*Complete each of the Activities listed below:*

*In your notes:*

- Consider how you would tell a lay person how to cook something they're not familiar with. Detail how you would go about communicating the process and how you would know whether they understood.

**Learning Material**

- Be specific, explicit and complete.
- Be sure to have their attention.
- Be careful to be understandable and meaningful to the *listeners*.
- Verify that instructions are understood
  - Blank look?
  - Parroting back doesn't indicate understanding
  - Ask: Have I told you everything you need to know?
- Follow up to be sure.