Ordering Food

Key Terms:

**AP (As Purchased):** This term refers to the form in which the food is delivered. For example, fresh potatoes or apples are delivered with the peeling.

**Forecasting:** Predicting the amount of food that needs to be prepared using production records and your past experience.

**IQF:** Individually Quick Frozen. This term refers to food items frozen individually so pieces can be removed as needed. For example, French fries are always purchased IQF so the amount needed can be removed from the total package.

**Portion control tools:** Serving tools that measure the amount served.

**Practical measure:** The amount that is easiest to purchase and use. For example, using the *Food Buying Guide*, the manager may calculate that five No. 10 cans of peaches are needed. The nearest practical measure to be ordered is one case (six No. 10 cans).

**Procurement:** All the activities involved with purchasing (or buying) food and supplies.

**References:**
http://teamnutrition.usda.gov/Resources/foodbuyingguide.html

Every school system has a certain way of ordering food. Usually, the procedure includes five basic steps.

1. Use the planned menus to forecast the number of servings of each menu item.

2. Figure out how much of each item should be ordered.

3. Give the order information to the central office by a certain date.

4. Follow correct procedures to receive and store the food.

5. Supervise the preparation of food.

**Using the Food Buying Guide**

The USDA has developed the revised *Food Buying Guide* (November 2001) to help you figure how much food to order and prepare for the required portion size to meet meal pattern requirements. Yield information for 1,200 foods has been determined by taking into account the changes in food caused by storage, preparation, and cooking. The yield information tells you how much to order and prepare for a certain portion size.
Follow these steps to use the *Food Buying Guide*

1. Begin with your menu that includes all choices to be offered.

2. For each menu item, decide on the portion size to be served. Plan portion sizes based on the lunch or breakfast meal requirements.

3. Decide on the number of portions you plan to serve. This is called forecasting the number of portions. Looking back at the number of portions for the same menu item served on another day is a good way to begin to forecast. Use your Food Production Records to find that information.

4. Use the *Food Buying Guide* to figure out how much of each food item to order and prepare. The *Food Buying Guide* is divided by meal components and also has an Index of Foods where all foods are arranged. Either way will help you find the food you are looking for.

**How to Use the Yield Tables**

**Locating Food Items**

|----------------------|-------------|-------------------------------|----------------|-------------------------------|--------------------------------|

Copy the information from the *Food Buying Guide* in the spaces below. See Ground Beef in excerpted sections in Appendix.

Ground Beef 20% fat

2. ________ 3. ________ 4. ________ 5. ________ 6. ________

Pages I-44 through I-48 of the *Food Buying Guide* explains how to use each column of the yield data tables.

**Determining the Quantities of Food Needed from the Food Buying Guide Using the Formula**

Use your calculator:
When you see this sign in the formula, X, you should multiply.
Always put the decimal point in your calculator.
If you end up with more than three numbers after the decimal on your calculator, round to the third number.
If your calculator does not have a tape, record the answers at each step.
Enter numbers in your calculator in this order:
  To multiply – enter the numbers from left to right.
  To divide – enter the top number first, press the divide sign, and enter the bottom number.
Round numbers after you have finished the Formula.

Step 1: Decide the number of servings of the food needed and the serving size needed.
  Name and description of food ____________________________
  __________________ number of svg needed ______________ svg size needed

Step 2: Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

The Formula

<table>
<thead>
<tr>
<th>Purchase Units for 100 servings (FBG Column 5)</th>
<th>number of svg needed</th>
<th>svg size needed</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>=</td>
</tr>
<tr>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
<td>(D)</td>
</tr>
</tbody>
</table>

A. Purchase units for 100 servings (FBG Column 5) = ______________

B. number of svg needed = ______________ = ______________
   number of svg listed

C. svg size needed = ______________ = ______________ = ______________
   svg size listed

D. Complete the Formula to find the quantity needed:

   (A) __________ X (B) __________ X (C) __________ = (D) __________

Step 3: Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

   __________ Quantity needed = __________ Nearest practical amount to purchase

- The formula was developed with the guidance of Dr. Eldon L. Miller, Professor of Mathematics, University of Mississippi.

The Formula can be used to determine amount to purchase for more than 100 servings of a food and for less than 100 servings.
Example to determine amount to purchase for less than 100 servings: Determine the amount to purchase in order to serve 88 – ¼ cup servings of canned sliced peaches.

Step 1: Decide the number of servings of the food needed and the serving size needed. Name and description of food Canned sliced peaches
See Appendix for Sections excerpted from The Food Buying Guide.

88 number of svg needed ¼ cup svg size needed

Step 2: Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Units for 100 servings ( X ) number of svg needed ( X ) svg size needed = Quantity Needed</td>
</tr>
<tr>
<td>(FBG Column 5) ( (A) ) number of svg listed ( (B) ) svg size listed ( (C) ) ( (D) )</td>
</tr>
</tbody>
</table>

A. Purchase units for 100 servings (FBG Column 5) = 2.0 #10 cans

B. \( \frac{\text{number of svg needed}}{\text{number of svg listed}} = \frac{88}{100} = .88 \)

C. \( \frac{\text{svg size needed}}{\text{svg size listed}} = \frac{1/4 \text{ cup}}{1/4 \text{ cup}} = .25 = 1 \)

D. Complete the Formula to find the quantity needed:

\( (A) \times (B) = (C) = (D) \)

\( 2.0 \times .88 \times 1 = 1.76 = 1.76 \#10 \text{ cans} \)

Step 3: Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

2 #10 cans Quantity needed = 1 case Nearest practical amount to purchase

2 #10 cans are needed for preparation of 88 – ¼ cup servings of peaches. Since #10 cans are purchased by the case (6 #10 cans in a case), the “nearest practical amount to purchase” is 1 case of 6 #10 cans.
Practice, Practice, Practice!

Using the Formula and the Food Buying Guide*

**Problem 1.**  
**Step 1:** Decide the number of servings of the food needed and the serving size needed. Name and description of food. **Corn, whole kernel, vacuum pack, #10 cans**

See Appendix for Sections excerpted from *The Food Buying Guide.*

- **460** number of svg needed  
- **1/2 cup** svg size needed

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
<th>Purchase Units for 100 servings (FBG Column 5)</th>
<th>number of svg needed</th>
<th>number of svg listed</th>
<th>svg size needed</th>
<th>svg size listed</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
<td>(D)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. Purchase units for 100 servings (FBG Column 5) = __________

B. number of svg needed = __________ = __________
   number of svg listed

C. svg size needed = __________ = __________ = __________
   svg size listed

D. Complete the Formula to find the quantity needed:

(A) __________ X (B) __________ X (C) __________ = (D) __________

**Step 3:** Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

__________ Quantity needed = __________ Nearest practical amount to purchase

**Problem 2.**

**Step 1:** Decide the number of servings of the food needed and the serving size needed. Name and description of food **USDA donated ground beef, 20% fat**
See Appendix for Sections excerpted from *The Food Buying Guide*

230 number of svg needed  
2 oz. svg size needed

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Units for 100 servings (FBG Column 5) X number of svg needed X number of svg listed X svg size needed X svg size listed = Quantity Needed</td>
</tr>
</tbody>
</table>

(A) X (B) X (C) X (D)

A. Purchase units for 100 servings (FBG Column 5) = ____________

B. number of svg needed = ____________ = ____________
   number of svg listed

C. svg size needed = ____________ = ____________ = ____________
   svg size listed

D. Complete the Formula to find the quantity needed:

   (A) __________ X (B) __________ X (C) __________ = (D) __________

**Step 3:** Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

__________ Quantity needed = __________ Nearest practical amount to purchase

**Problem 3:**

**Step 1:** Decide the number of servings of the food needed and the serving size needed. Name and description of food **Crinkle-Cut French fries**

See Appendix for Sections excerpted from *The Food Buying Guide.*

380 number of svg needed  
1/2 cup svg size needed

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.
The Formula

<table>
<thead>
<tr>
<th>Purchase Units for 100 servings</th>
<th>number of svg needed</th>
<th>svg size needed</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(FBG Column 5)</td>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
</tr>
</tbody>
</table>

A. Purchase units for 100 servings (FBG Column 5) = __________

B. number of svg needed = ____________ = __________
   number of svg listed

C. svg size needed = ____________ = ____________ = ____________
   svg size listed

D. Complete the Formula to find the quantity needed:

(A) _______ X (B) _______ X (C) _______ = (D) _______

Step 3: Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

________ Quantity needed = __________ Nearest practical amount to purchase

Problem 4:

Step 1: Decide the number of servings of the food needed and the serving size needed. Name and description of food: Green peas, frozen

See Appendix for Sections excerpted from The Food Buying Guide.

330 number of svg needed 1/2 cup svg size needed

Step 2: Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>Purchase Units for 100 servings</th>
<th>number of svg needed</th>
<th>svg size needed</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(FBG Column 5)</td>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
</tr>
</tbody>
</table>

A. Purchase units for 10 servings (FBG Column 5) = __________

B. number of svg needed = ____________ = __________
   number of svg listed

C. svg size needed = ____________ = ____________ = ____________
   svg size listed

D. Complete the Formula to find the quantity needed:

(A) _______ X (B) _______ X (C) _______ = (D) _______

Problem 4:

Step 1: Decide the number of servings of the food needed and the serving size needed. Name and description of food: Green peas, frozen

See Appendix for Sections excerpted from The Food Buying Guide.

330 number of svg needed 1/2 cup svg size needed

Step 2: Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.
C. \( \text{svg size needed} = \frac{\text{number of svg needed}}{\text{number of svg listed}} = \frac{\text{svg size needed}}{\text{svg size listed}} = \frac{A}{B} \)  

D. Complete the Formula to find the quantity needed:

\[
(A) \ rac{\text{number of svg needed}}{\text{number of svg listed}} \times (B) \ rac{\text{svg size needed}}{\text{svg size listed}} = (D) \ 	ext{Quantity Needed}
\]

**Step 3:** Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

\[
\text{number of svg needed} = \text{Quantity needed} = \text{Nearest practical amount to purchase}
\]

*You are responsible for making the decision on the amount to prepare (or quantity needed). Remember that food represents money (food cost), so be practical.*

*When your calculations indicate that you must round up to the nearest practical measure, you should decide on the most efficient way to use the extra food item.*

**Problem 5:**

**Step 1:** Decide the number of servings of the food needed and the serving size needed. Name and description of food **Pinto beans, #10 can**

- See Appendix for Sections excerpted from *The Food Buying Guide*.
- \( \text{number of svg needed} = 70 \)
- \( \text{svg size needed} = \frac{1}{2} \text{ cup} \)

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Units for 100 servings (FBG Column 5)</td>
<td>(A)</td>
</tr>
<tr>
<td>number of svg needed</td>
<td>(B)</td>
</tr>
<tr>
<td>number of svg listed</td>
<td>(C)</td>
</tr>
<tr>
<td>svg size needed</td>
<td>(D)</td>
</tr>
<tr>
<td>Quantity Needed</td>
<td></td>
</tr>
</tbody>
</table>

**Calculate:**

- Purchase units for 100 servings (FBG Column 5) = 

**A.** \( \text{number of svg needed} = \frac{\text{number of svg listed}}{\text{number of svg listed}} = \frac{A}{B} \)
B. \( \text{svg size needed} = \frac{\text{number of svg listed}}{\text{svg size listed}} = \frac{\text{number of svg needed}}{\text{number of svg listed}} = \frac{\text{svg size needed}}{\text{svg size listed}} \)

C. Complete the Formula to find the quantity needed:

\[
(A) \text{__________} \times (B) \text{__________} \times (C) \text{__________} = (D) \text{__________}
\]

**Step 3:** Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

\[
\text{__________ Quantity needed} = \text{__________ Nearest practical amount to purchase}
\]

**Problem 6.**

**Step 1:** Decide the number of servings of the food needed and the serving size needed.

Name and description of food: **Turkey, ready-to-cook, whole, without neck and giblets**

See Appendix for Sections excerpted from *The Food Buying Guide*.

1100 number of svg needed \hspace{1cm} 2 oz. svg size needed

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
<th>Purchase Units for 100 servings (FBG Column 5)</th>
<th>number of svg needed</th>
<th>number of svg listed</th>
<th>svg size needed</th>
<th>Number of Purchase Units (FBG Column 4)</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
<td></td>
<td>(D)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A.** Purchase units for 100 servings (FBG Column 5) = ____________

**B.** number of svg needed = ____________ = ____________

number of svg listed

**C.** svg size needed = ____________ = ____________ = ____________

svg size listed

**D.** Complete the Formula to find the quantity needed:

\[
(A) \text{__________} \times (B) \text{__________} \times (C) \text{__________} = (D) \text{__________}
\]
Step 3: Always round up to the nearest practical purchasing unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

Quantity needed = Nearest practical amount to purchase

Problem 7.

Step 1: Decide the number of servings of the food needed and the serving size needed.

Name and description of food **Spaghetti**

See Appendix for Sections excerpted from *The Food Buying Guide*.

- **280** number of svg needed
- **1 cup** svg size needed

Step 2: Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula.

<table>
<thead>
<tr>
<th>The Formula</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Units for 100 servings</td>
<td>X number of svg needed</td>
<td>X svg size needed</td>
<td>= Quantity Needed</td>
</tr>
<tr>
<td>(FBG Column 5)</td>
<td>(FBG Column 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A)</td>
<td>(B)</td>
<td>(C)</td>
<td>(D)</td>
</tr>
</tbody>
</table>

A. Purchase units for 100 servings (FBG Column 5) = ____________

B. number of svg needed = ____________ = ____________
   number of svg listed

C. svg size needed = ____________ = ____________ = ____________
   svg size listed

D. Complete the Formula to find the quantity needed:

(A) __________ X (B) __________ X (C) __________ = (D) __________

Step 3: Always round up to the nearest practical unit. Your school system Order Guide or purchasing specifications give information on the size of purchase units.

Quantity needed = Nearest practical amount to purchase
Using the Formula When Serving Varying Portion Sizes

Schools may serve students in different age groups the minimum or the recommended portion sizes for each age group.

1. Use the Formula to determine the quantity of the \( \frac{1}{4} \) cup portion size of a fruit or vegetable needed for the number of preschool students.
2. Use the Formula to determine the quantity of the \( \frac{1}{2} \) cup portion size of a fruit or vegetable needed for the number of grade K-12 students.
3. Add the quantity needed for both groups to get the total quantity needed of the specific fruit or vegetable.
4. Determine the nearest practical amount to purchase.
This step-by-step method will work with any food (meat, vegetables, fruits, etc.).

**Problem 8.**

**Step 1:** Decide the number of servings of the food needed and the serving size needed. Name and description of food **Applesauce, canned, smooth**

<table>
<thead>
<tr>
<th></th>
<th>Preschool</th>
<th>number of svc needed</th>
<th>1/4 cup</th>
<th>Grades K-12</th>
<th>number of svc needed</th>
<th>1/2 cup</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>number of svc listed</strong></td>
<td>80</td>
<td></td>
<td></td>
<td>525</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(School systems vary in the portion sizes served to different age groups.)

**Step 2:** Use the Formula to determine the quantity needed. Write down your calculations for each step of the Formula. Then add the quantity needed for each group to determine the total quantity needed.

<table>
<thead>
<tr>
<th>The Formula</th>
<th>Purchase Units for 100 servings (FBG Column 5) X number of svc needed X svg size needed = Quantity Needed svg size listed (FBG Column 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Purchase units for 100 servings (FBG Column 5) = 2.2 #10 cans</td>
</tr>
</tbody>
</table>

Remember, you will use the Formula to determine quantity needed for each age group separately. Then add together the two quantities to find the total quantity needed for the menu item.

**Preschool**

**B.** number of svc needed = \( \frac{80}{100} \) = 0.8

**Preschool**

**C.** svg size needed = \( \frac{0.8}{1} \) = 0.8 = 0.8
D. Complete the Formula to find the quantity needed:

\[(A) \quad \checkmark \quad (B) \quad \checkmark \quad (C) \quad \checkmark \quad = \quad (D) \quad \checkmark \]

Step 3: __________ Quantity needed for Preschool

Grades K-12
B. number of svg needed = \_

number of svg listed = 100

C. svg size needed = \_

svg size listed = \(

D. Complete the Formula to find the quantity needed:

\[(A) \quad \checkmark \quad (B) \quad \checkmark \quad (C) \quad \checkmark \quad = \quad (D) \quad \checkmark \]

Step 3: __________ Quantity needed for Grades K-12

Add the quantity needed for both groups:

\[
\text{Preschool + Grades K-12} = \_ + \_ = \_ \text{ Quantity needed}
\]

Nearest practical amount to purchase =

Using the School System’s procedures for Ordering Food

Most school systems are centralized for all food procurement. The school system has a
procedure that each manager should follow to place orders for food items which are purchased
through bids and those which are purchased weekly, for example fresh produce. The manager
should meet with the CNP Director to review the system procedure for ordering food.

Below is a list of suggested general procedures for ordering food.

1. Use the menu to list all items needed.
   Filling out your Food Production Record for Columns 1-9 will give you this information.

2. Determine the foods and supplies in your inventory and those ordered but not received.
   Talk with your CNP Director about the system policy and procedures for inventory control. It is recommended that schools have no more than a seven day menu supply of food in storage. However, how inventory is handled varies in different school systems. The amount of food you should have in storage depends partly on how often you can get delivery of
various food items. State wide procurement allows for weekly prime vendor deliveries.

3. **Order just what is needed for the time period used in your school system.**
   For example, if you get deliveries of meat items each week, order only the amount of meat you will use during that week’s order period. If your deliveries are every other week, the amount you order will have to include all meat items for the two-week period. Your CNP Director can help you with this procedure.

4. **Follow school system procedures for ordering food.**
   Remember to order enough food to justify the delivery from the company, since delivery cost is figured into the price paid for the food. Always follow school system procedures for ordering food.

*Remember, food represents money. Having too much food in inventory may seem like money in the bank. However, that is not the case. Too much food in inventory costs money because of storage costs and the possibility of the food losing quality during storage. Order carefully!*