

York College  
The City University of New York  
School of Health Sciences & Professional Programs  
Department of Health & Human Performance  
**HE 314 Nutrition and Health**

**Homework #1. Calculating Calories and Reading Food Labels**

The purposes of homework #1 are as follows:

1. How to calculate calories from grams carbohydrates, fats, and protein in a food?
2. How to calculate total calories and to identify correct reporting of calories in food based on the Food Drug Administration Regulations?
3. How to calculate the percentages of calories in food on a 2000 kcal caloric intake recommendation scale? Explain what Daily Value Percentage (DV%) represents? DV% for energy requirements or DV% for nutrient requirements?
4. How to read, to interpret, and to explain what is on a food label in your own words (this means you have to proofread your written work)?
5. Write a reflection on detailing.

Grading Criteria.

| <b>Weekly Homework Assignment Grading Rubric</b>   | <b>Grade</b> |
|--|--------------|
| Students completed <u>all</u> components of the task accurately and clearly. Substantive responses posted.                                       | 9 to 10      |
| Student completed <u>some</u> of the task correctly but did not communicate his or her ideas clearly and/or did not post a substantive response. | 3 to 8       |
| Student's post was irrelevant, unclear, unedited or student did not respond with anything of value. Student missed the submission date.          | 0 to 2       |
| <b>Student Reflection</b>  | <b>Grade</b> |
| Reflection entry is thoughtful, carefully written, and demonstrates self-reflection with regard to the topic.                                    | 5            |
| Reflection entry is thoughtful, carefully written, and generally demonstrates self-reflection with regard to the topic.                          | 4 to 3       |
| Reflection entry shows lapses in care and depth of understanding the task at hand.   | 2 to 1       |
| Reflection entry is not thoughtfully written and does not suggest that the subject has been taken seriously.                                     | 0            |

Directions: Read and answer the following questions in detail.

Question #1. **Calculating/Converting grams (g) to calories (kcal). Include all appropriate units and details.** [See example]

According to the weight (in grams[g]) of a biscuit that contains 10 g of fat, 40 g of carbohydrate, and 8 g of protein:

1. How many calories (kcal) are from fat? Show calculation.
2. How many calories (kcal) are from carbohydrates? Show calculation.
3. How many calories (kcal) are from protein? Show calculation.
4. How many total calories (kcal) from one serving of biscuit? (**Reporting of total calories must be in accord with FDA regulation**)
5. The biscuit was so delicious, and Ross end up eating 2 servings of biscuit. How many total calories (kcal) overall? (**Reporting values total calories must be in accord with FDA regulation**)

**Question #2. Calculating calories from a food label (include all appropriate units and details).**

| Nutrition Facts   |                   |
|---|-------------------|
| Serving Size: 45g   |                   |
| Servings Per Package: 10  |                   |
| Amount Per Serving  |                   |
| Calories 153  | Calories from Fat |
|   | % Daily Value*    |
| Total Fat 9g  | 13%               |
| Saturated Fat 3g  | 14%               |
| Cholesterol 2mg   | 1%                |
| Sodium 68mg   | 3%                |
| Total Carbohydrate 18g  | 6%                |
| Dietary Fiber 0g  | 1%                |
| Sugars 6g   |                   |
| Protein 2g  | 3%                |
| Vitamin A 0%  | • Calcium 0%      |
| Vitamin C 0%  | • Iron 3%         |
| * Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs. |                   |

Here is a nutritional facts label from a local Italian box of cookies. Answer the following questions below.

1. How many calories (kcal) are from fat in a serving? Show calculation.
2. How many calories (kcal) are from carbohydrates in a serving? Show calculation.
3. How many calories (kcal) are from protein in a serving? Show calculation.
4. How many total calories (kcal) from one serving of Italian cookie? **Briefly explain why you chose your final answer (Reporting of total calories must be in accord with FDA regulations).**
5. The cookies were so delicious, and Don ended up eating 5 servings of Italian cookies.
  - a. How many total calories (kcal) did Don end up consuming?
  - b. Based on the total servings that Don ended up consuming, what is the % Daily Value of Fats? And explain what it means using the facts on the label?

**Question 3. How to read, to interpret, and to explain what is on a food label in your own words (this means that you have to proofread your written work).**



The product on this label is a commercialized beef jerky from a retail store.

Your role is the following:

- 1) Read the food label.
- 2) Explain the major components of a food label.
  1. Discuss Serving Information.
  2. Discuss Calories of this product.
  3. Explain what % Daily Value means for all nutrients. (specify DV% for energy requirements or DV% for nutrient requirements?)
  4. Explain why some nutrients do not have % Daily Value.
  5. Discuss the expected quantity of each ingredient listed.
- 3) If a person consumes the entire product, what, then, would be the Daily Value changes? Second, discuss why the increase in DV% matters for each nutrient in terms of the 2000 caloric recommended value?

\*\* You may use chart to show changes in DV% for each nutrient and it is expected that student will explain the chart in the student's own words.

**Student Reflection.**

Now that you have completed the activities in Module #2, in concise, well-planned sentences, answer the questions below:

1. In your own words, list at least 3 of the most significant (central, useful, meaningful, or surprising) information that you have learned during this module.
2. What question (s) remain most in your mind?
3. Is there anything that you did not understand?