**Nutrition Label Calculations** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_ Per:\_\_\_

|  |  |
| --- | --- |
| 1. How many **cheetos** (“pieces”) are in one serving?

(see “Serving Size”)1. How many **Calories** are in one serving?

(see “Calories”)1. How many **Calories** are in ONE cheeto?
2. How many **cheetos** would you need to get 100 Calories?
3. How many **servings** are in the whole bag?

(see “Servings Per Container”)1. How many **cheetos** are in the whole bag?
2. How many **Calories** are in the whole bag?
3. How many **grams** of fat are in one serving?
4. How many **grams** of fat are in the whole bag?
 | Always show your work *(what you typed into the calculator)*Always show units *(hint: the units for your answers* *should match what is in bold)*http://www.ucsdnutritionlink.org/images/cheetoslabel.gif |

1. What **% Daily value** of total fat do you get from one serving?
2. How many **servings** would you need to eat to get 100% of your fat for the day?
3. How many **cheetos** would you need to eat to get 100% of your fat from the day?
4. What **percent** of your Fiber for each day (%DV) do you get from one serving?
5. How many **servings** would you need in order to get 100% of your Fiber for the day?
6. What **percent** of your daily fat would you get if you ate enough cheetos to reach 100% of your Fiber

 for the day?

|  |  |
| --- | --- |
| 1. How many **Calories** are in 10 grapes?
2. How many **Calories** are in 1 grape?
3. How many **grapes** would you need to get 100 Calories?
4. How many **servings** would you need to get 100 Calories?
5. What **percent** of your daily vitamin C (%DV) do you get from 1 serving of grapes?
6. How many **servings** of grapes do you need to get 100% of your vitamin C for the day?
7. How many **grapes** do you need to eat to get 100% of the vitamin C for the day?
 | **Grapes**http://fruitandproduceguide.com/blog/wp-content/uploads/2011/11/grapeNutrition.jpg |

1. If there is 1 Calorie from fat, why does the label say there’s 0g fat?

24) How do you get 2% of your daily fiber from a serving of grapes if there are 0g of fiber?

**D-2: This is 100 Calories (+5-7\* extra credit points)**

* Choose a food of your choice to bring to class.
* Use the nutrition label to calculate the amount of that food that provides 100 Calories.
* Bring to class your math on paper (show your work, and include units), the nutrition label, and 100 Calories worth of that food in a zip-loc bag to be displayed in the class.
* You may not choose a food that already comes packaged in servings of 100 Calories.
* If the food you bring needs to be weighed because it does not show the serving size as a number of pieces, Mr. Warren can provide a scale.
* You may not choose any food that has already been turned in before you.
* \***Bonus**: Calculate the number of pieces that is supposed to be in the whole container, and then count how many pieces are actually there. Include the math (show work, and include units) and the amount you counted on your paper for +2 pts.

**More Nutrition Label Practice Calculations**

Show your work (include what you multiplied/divided to get your answer), and include units!

|  |  |
| --- | --- |
| **Chicken McNuggets**C:\Users\Mister Warren\Downloads\mcnugget label.png**Big Mac**C:\Users\Mister Warren\Downloads\big mac label.png | 1. How many Chicken McNuggets are in the whole box?

4 nuggets per serving x 5 servings per box = 20 nuggets1. How many Calories does **one McNugget** have?

190 Cal per serving / 4 nuggets per serving = 47.5 Calories1. How many Calories are in **the whole box**?

190 Cal per serving x 5 servings per box = 950 Calories1. What **percent** of Calories (**out of 2000 Calories**) would you consume if you ate the whole box?

950 Cal / 2000 Cal = 0.475 = 47.5%1. How many McNuggets would you need to eat to **reach 2000 Calories**?

2000 Cal / 47.5 Cal per nugget = 42 Nuggets1. For the McNuggets, what **percent** of Calories are **from fat**?

*(note: you should try to keep your % calories from fat below 30%)*110 Cal from fat / 190 total Cal = 0.579 = 57.9%1. For the Big Mac, what **percent** of Calories are **from fat**?

240 Cal from fat / 530 Cal per big mac = 0.453 = 45.3%1. What **percent** of Calories (**out of 2000 Calories**) would you consume if you ate a Big Mac?

530 Cal per big mac / 2000 Cal = 0.265 = 26.5%1. How many Big Macs would you need to eat to **reach 2000 Calories**? (Round to 1 decimal place.)

2000 Cal / 530 Cal per big mac = 3.8 Big Macs1. How many McNuggets would you need to eat to get the same Calories as a Big Mac?

530 Cal per big mac / 47.5 Cal per nugget = 11 Nuggets1. When comparing nutrient densities, why would it be unfair to compare the numbers in 1 serving of McNuggets versus the numbers in 1 Big Mac?

Nutrient Density refers to the amount of nutrients compared to the energy (Calories) the food provides. In order to compare the nutrient densities, we must compare the nutrients found in foods of eqal amounts of Calories. |

If you’re struggling with what numbers to multiple or divide, this list can help you. However, the goal is for you to understand how to do the calculations--not just to get the right answers for these practice problems on your paper.

1. Find Serving size (pieces)
2. Find Calories (amount per serving)
3. Calories (per piece) = Calories (amount per serving) / Serving size (pieces)
4. Pieces (for 100 Calories) = 100 Calories / Calories (per piece)
5. Find Servings Per Container
6. Pieces per container = Serving size (pieces) x Servings per container
7. Calories per container = Calories (amount per serving) x Servings per container
8. Find Total Fat (g)
9. Fat (g) per container = Total Fat (g per serving) x Servings per container
10. Find Total Fat (% Daily Value)
11. Servings (for 100% fat) = 100% / Total Fat (%DV)
12. Pieces (for 100% fat) = Servings (for 100% fat) x Serving size (pieces)
13. Find Dietary Fiber (% Daily Value)
14. Servings (for 100% Fiber) = 100% / Dietary Fiber (%DV)
15. % Fat = Servings (for 100% Fiber) x Total Fat (%DV)
16. Find Calories (amount per serving)
17. Calories (per grape) = Calories (amount per serving) / Serving Size (grapes)
18. Grapes (for 100 Calories) = 100 Calories / Calories (per grape)
19. Servings (for 100 Calories) = 100 Calories / Calories (amount per serving)
20. Find Vitamin C (% Daily Value)
21. Servings (for 100% Vitamin C) = 100% / Vitamin C (%DV)
22. Grapes (for 100% Vitamin C) = Servings (for 100% Vitamin C) x Serving Size (grapes)
23. Thinking Question?
24. Thinking Question?
25. Chicken McNuggets (per box) = Servings Per Container x Serving Size (Nuggets)
26. Calories (per Nugget) = Calories (amount per serving) / Serving Size (Nuggets)
27. Calories (per box) = Calories (amount per serving) x Servings per container
28. % of 2000 Calories = Calories (per box) / 2000 Calories *(…then convert decimal to percent)*
29. Nuggets (for 2000 Calories) = 2000 Calories / Calories (per Nugget)
30. % Calories from fat = Calories from Fat / Calories (amount per serving) *(…then convert decimal to percent)*
31. % Calories from fat = Calories from Fat / Calories (amount per serving) *(…then convert decimal to percent)*
32. % of 2000 Calories = Calories (Amount per serving) / 2000 Calories *(…then convert decimal to percent)*
33. Big Macs (for 2000 Calories) = 2000 Calories / Calories (Amount per serving)
34. Nuggets (per big mac) = Calories (per big mac) / Calories (per nugget)
35. Thinking Question?

Answer Key:

1. 21 cheetos
2. 160 Calories
3. 160/21 = 7.6 Calories
4. 100/7.6 = 13.2 cheetos
5. 3.5 servings
6. 21 x 3.5 = 73.5 pieces
7. 160 x 3.5 = 560 Calories
8. 10g Fat
9. 10 x 3.5 = 35g Fat
10. 15% Fat
11. 100%/15% = 6.7 servings
12. 6.7 x 21 = 141 cheetos
13. 1% Fiber
14. 100%/1% = 100 servings
15. 100 x 15% = 1500% Fat (🡨 that’s 15 days worth of fat to get 1 day worth of fiber)
16. 34 Calories
17. 34/10 = 3.4 Calories
18. 100/3.4 = 29 grapes
19. 100/34 = 2.9 servings
20. 9% Vitamin C
21. 100/9 = 11 servings
22. 11 x 10 = 110 grapes
23. The number is so small, it rounds down to 0
24. There is fiber in it, but the number is so small it rounds down to 0
25. 5x4 = 20 Nuggets
26. 190/4 = 47.5 Calories
27. 190 x 5 = 950 Calories
28. 950/2000 = 0.475 = 47.5% of your day’s Calories
29. 2000/47.5 = 42 Nuggets
30. 110/190 = 0.579 = 57.9% Calories from fat
31. 240/530 = 0.453 = 45.3% Calories from fat
32. 530/2000 = 0.265 = 26.5% of your day’s Calories
33. 2000/530 = 3.8 Big Macs
34. 530/47.5 = 11 Nuggets
35. Nutrient Density refers to the amount of nutrients compared to the energy (Calories) the food provides. In order to compare the nutrient densities, we must compare the nutrients found in foods of equal amounts of Calories.