

name:_____

period:_____

Unit 2: Combustion

1 Lesson 2.1 Computing the Energy in Food

- The modern metric unit of energy is the joule.
- An older unit of energy is the calorie.
- To convert use: 1 calorie = 4.2 joules
- A food calorie = 1000 energy calories = 1 kilocalorie = 1 kcal

Find the **grams per serving**

Find the food **calories per serving** on the label - remember that these are actually kcal of energy.

Compute the kcal per gram:

$$\text{calories per serving} = \underline{300} \text{ kcal}$$

$$\text{grams per serving} = \underline{102} \text{ g}$$

$$\text{kcal/g} = \frac{\text{calories per serving}}{\text{grams per serving}} = \underline{2.9} \text{ kcal/g}$$

Nutrition Facts

Serving Size 1/2 cup (102g)
Servings Per Container 4

Amount Per Serving

Calories 300 Calories from Fat 160

% Daily Values*

Total Fat 18g **28%**

Saturated Fat 9g **45%**

Trans Fat 0g

Cholesterol 45mg **15%**

Sodium 250mg **10%**

Total Carbohydrate 33g **11%**

Dietary Fiber 1g **4%**

Sugars 30g

Protein 7g

Vitamin A 15% • Vitamin C 0%

Calcium 15% • Iron 4%

* Percent Daily Values are based on a 2,000 calorie diet.