

Do the Contents of Two Cans of Mixed Nuts Meet FDA Regulations?

The Food and Drug Administration (FDA) has two main areas of concern about food. First, and most important, the FDA ensures that food sold in the United States is safe to eat. Second, the FDA ensures that the information on a food label accurately describes a food product.

What can you assume when you see the label “mixed nuts” on a can of nuts? According to the FDA regulations, a can labeled mixed nuts must contain at least four types of shelled nuts other than peanuts. The mass of each type of nut must be not less than 2 percent of the total mass and not more than 80 percent of the total mass.

Contents of Two Cans of Mixed Nuts		
Type of Nut	Mass in Brand A	Mass in Brand B
Peanut	152.39 g	191.96 g
Almond	47.02 g	31.18 g
Brazil Nut	57.88 g	19.60 g
Cashew	46.20 g	73.78 g
Hazelnut	19.90 g	16.90 g
Pecan	21.40 g	16.90 g

Use the table to answer the questions below.

1. How are the two brands of mixed nuts alike? How are they different?
2. What is the percent by mass of each type of nut in each can? (Take the mass of each nut and divide it by the total mass for each can)
3. Do the contents of each can meet the FDA regulations? Explain.
4. On the Brand A label, the nuts are listed in this order: peanuts, Brazil nuts, almonds, cashews, pecans, and hazelnuts. What do you think determines the order?

5. Pick a cereal that is an obvious mixture. Write rules that could be used to control the cereal's composition. Use the FDA rules for mixed nuts as a model.