

NAME _____

DATE _____

QUESTIONS

1. How much does the fat weigh?

If a 145 pound person has 24% body fat, how much does their fat weigh?

34.8 pounds

15,800 grams

2. How many calories are stored in the fat?

Based on your calculation above, how many calories is the person storing?

142,200 calories

3. How much glycogen is needed to provide the same calorie content?

Based on your calculation in question 2, how much glycogen would be required to store the same number of calories?

35,550 grams of glycogen

78.3 pounds of glycogen

4. How much water would be stored with glycogen?

Stored in body tissue, glycogen holds twice its weight in water.

Based on your calculation in question 3, how much water would be stored with the glycogen?

156.6 pounds of water

5. How much would the person weigh?

Based on your calculations above, what would be the total weight of the person if they stored the same number of calories, but stored them as glycogen rather than fat?

145 pounds – 34.8 pounds of fat + 78.3 pounds of glycogen + 156.6 pounds of water

= 345 pounds total