

The Sum of the Parts Equals  
the Sum of the Whole

Practice Questions

Rules:

- 1.) You need to simply write the letter of your answer choice BUT be ready to explain your reasoning.
- 2.) Keep a tally of the ones you get correct in the upper corner of the white board.
- 3.) If you put anything on the white board that does not belong, you will then have to use paper and pencil.

1.) Carlos has eight marbles that are the same size. He knows that one marble weighs 10 g. To find out how much his marbles weigh all together, he adds 8 tens and gets a total of 80 g.

$$10+10+10+10+10+10+10+10 = 80$$

Why does this method of finding the total weight work?

- a.) The weight of a group is always less than the sum of the weights of all its parts.
- b.) The weight of a group is always greater than the sum of the weights of all its parts.
- c.) The weight of a group is equal to the sum of the weights of all its parts. *wholes*
- d.) The weight of a group is not related to the weights of its parts.

2.) Ricco is making paper air planes. He uses 5 grams <sup>parts</sup> of paper <sup>whole</sup> to make 10 paper airplanes. If he weighs the paper airplanes, which is their total mass?

- a.) 5 grams
- b.) 10 grams
- c.) 15 grams
- d.) 50 grams

3.) Jasmine bought a 525-gram bag of unfrozen fruit popsicles. Which best describes the mass of the popsicles after they were completely frozen?

a.) 325 grams

b.) 425 grams

c.) 525 grams

d.) 625 grams

4.) Leslie places 5 pounds of ice in a 1 pound bucket with a lid. The next day, she notices all the ice has melted. When she weighs the bucket with the melted ice, what will it most likely weigh?

a.) 4 pounds

b.) 6 pounds

c.) 7 pounds

d.) 3 pounds

5.) Susan was traveling on an airplane to see her grandmother in another state. Her packed suitcase could weigh no more than 15 lbs. Susan laid out the items she wanted to pack and made note of their weights in the following table.

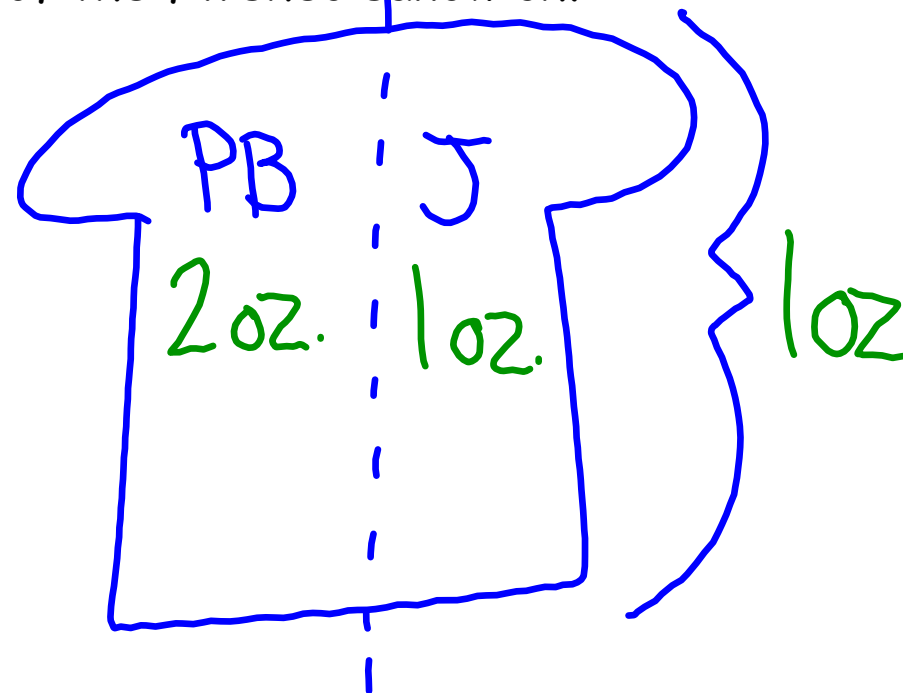
Item	Weight (lbs)
Clothing	3
Shoes	2
Toiletries	1
Books	2
Toys	3
Movies	2

If Susan's suitcase weighed 5 lbs by itself, what other items could she take?

- a.) Clothing, shoes, toiletries, books, toys, movies
- b.) Clothing, shoes, toiletries, books, toys
- c.) Clothing, shoes, books, toys, movies,
- d.) Clothing, shoes, toiletries, books, movies

6.) Jane took a 1 ounce slice of bread and cut it into 2 pieces. On one side, she put 2 ounces of peanut butter. On the other side she put 1 ounce of jelly. Which will most likely be the weight of the finished sandwich?

- a.) 7 ounces
- b.) 3 ounces
- c.) 6 ounces
- d.) 4 ounces



7.) Bess found 25 balls of paper <sup>parts</sup> that weigh 0.5 lbs all together. Which best describes the weight of all the paper before it was crumpled into balls? <sup>whole</sup>

- a.) 0.5 lbs
- b.) 1.0 lbs
- c.) 5.0 lbs
- d.) 12.5 lbs



8.) Bob puts 200 grams of ice into a pitcher with 900 grams of water. He gets distracted and comes back later to find that the ice has melted in the water. How many grams of water does Bob now have in the pitcher?

- a.) 200 grams
- b.) 700 grams
- c.) 900 grams
- d.) 1,100 grams



9.) While working in the yard, John and his father trimmed a few trees and put the branches into a machine to create mulch for the yard. If they created 10 kg of mulch, which is most likely the weight of the branches they used? *part*

a.) 5 kg

b.) 10 kg

c.) 15 kg

d.) 20 kg

*whole*

10.) Vanessa weighs her whole banana with the peel and it weighs 145 grams. She weighs the banana again after she has removed the peel. The banana now weighs 123 grams. About how much does the peel weigh? part

- a.) 14 grams  
b.) 18 grams  
 c.) 22 grams  
d.) 28 grams

$$\begin{array}{r} \cancel{123} \\ - \cancel{145} \\ \hline \end{array} \quad \begin{array}{r} 145 \\ - 123 \\ \hline 22 \end{array}$$

