

With the Bonus Treat **SNAP! CRACKLE! POP!**

The second problem I decided to explain is “Life is Better With Sprinkles on Top,” which is my interest driven problem. What Serena's mom needs to figure out is, how many pink and blue sprinkles she has in the 25lb box? She also needs to figure out how many of each color cupcake she can make with those sprinkles as this will determine, how many people can come to Serena’s seventh birthday party?

Serena’s mom knows four things that will guide her through and help her solve the problem. She knows that, one cupcake needs 50 pink or blue sprinkles, there are two pink sprinkles for every three blue sprinkles, one third of all the sprinkles are pink or blue, and there are 720 sprinkles per ounce.

I enjoy baking so I thought that this would be a problem I would enjoy writing and solving. There are many ways to incorporate ratios and proportions into baking, which helped me find ways to include them in my problem.

My first step for solving this problem was multiplying the amount of sprinkles in an ounce (720) by 16 ounces. You then multiply one pound by 25 pounds and divide your first answer by your second. An easy way to check this is by solving 288,000 divided by 25 which equals 11,520 divided by 16 equals 720 sprinkles per ounce.

My second step into the problem is multiplying one third (pink and blue sprinkles) by 288,000 sprinkles equals 96,000 pink and blue sprinkles in 25 pound box.

After solving the amount of pinks sprinkles I figured out the amount of blue sprinkles in the box. There were three different methods to solve this. The first method was subtracting 38,400 pink sprinkle by the 96,000 total pink and blue sprinkles which equals 57,600 blue

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sprinkles. The second method is three fifths multiplied by 96,000 sprinkles which equals 57,600.

The last method is 1.5 multiplied by 38,400 pink sprinkles = 57,600 blue sprinkles.

The next step is to find the number of each cupcake that could be made. There are three possible ways to figure this out. The first way is, is dividing the number of each sprinkle type by 50. To find the amount of pink cupcakes I would solve 38,400 divided by 50 which equals 768; to find the amount of blue cupcakes I would do 57,600 divided by 50 which equals 1,152. The second method is taking the number of pink cupcakes (768) and multiplying it by 1.5 the product equals the amount of blue cupcakes (1,152). The final method to solve this step is calculating the maximum number of cupcakes and subtracting the number of pink cupcakes from that (96,000 divided by 50 equals 1,920 cupcakes. You then subtract 768 pink cupcakes from 1,920 which equals 1,152 blue cupcakes).

The final step to solving the problem is 768 plus 1,152 which equals 1,920. 1,920 people can be invited to Serena's seventh birthday celebration. At the party 768 pink cupcakes will be served and 1,152 blue cupcakes will be served.

In addition to serving funfetti cupcakes at Serena's birthday party Serena's mom decided to serve white chocolate covered rice krispies treats. Serena's mom needs to figure out: How many batches does she need to make, and would there be extra treats? If there are extras, how many will there be? How much of each ingredient does she need to buy to make all the treats? How much does all the ingredients cost her? How much does each rice krispie treat cost?

One batch from the recipe she is using includes, 3 tablespoons of butter, 10 ounces of marshmallows, and 6 cups of Kellogg's Rice Krispies Cereal. After cutting 16 separate pieces,

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each individual treat is covered with 5 tablespoons of white chocolate. One batch of rice krispie treats makes 16 individual treats.

After finding a good recipe she went to a grocery store to purchase all the ingredients. She followed the recipes ingredients lists searching for one item at a time. The costs were one stick (eight tablespoons) of butter is two dollars, one bag (10 ounces) of marshmallows for one dollar and 25 cents, one box (12 cups) of Kellogg's Rice Krispies Cereal is three dollars and 50 cents, and the last ingredients is one bar (10 tablespoons) of Hershey's white chocolate is two dollars.

The first thing I solved was 1,920 people coming divided by 16 individual treats in a batch equals 120 batches of rice krispies. This means there are no extra treats from the batches.

If one batch includes three tablespoons of butter, 10 ounces of Marshmallows, six cups of cereal and five tablespoons of white chocolate, then, 120 batches of treats include, 360 tablespoons of butter, 1200 ounces of Marshmallows, 720 cups of Cereal and 600 tablespoons of white chocolate.

After solving the amount of ingredients needed according to the recipe I solved the amount of ingredients you need according to how they sell them at supermarkets. Following the measurements in the recipe, for 120 batches you need, 360 tablespoons of butter, 1200 ounces of Marshmallows, 720 cups of Cereal and 600 tablespoons of white chocolate. According to the the measurements used in supermarkets you need, 45 sticks of butter, 120 bags of marshmallows, 60 boxes of cereal and 60 bars of white chocolate. The total costs for each ingredient is \$80 for the butter, \$150 for the marshmallows, \$210 for the cereal, and \$120 for the white chocolate. To get

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the cost for all the ingredients you need to add 80, 150, 210, and 120. The sum of the individual costs equals \$560.

The final step is to solve the price for one treat. To solve this you need to do 560 divided by 1,920 which equals 0.29166667. I rounded up the unfriendly decimal to equal 29 cents.