**Rice Krispie Treats**

**Ingredients**

* 3 tablespoons butter
* 4 cups Miniature Marshmallows
* 6 cups [Kellogg's® Rice Krispies® cereal](http://www.ricekrispies.com/products/rice-krispies-cereal)

**Directions**

1. In large saucepan melt butter over low heat. Add marshmallows and stir until completely melted. Remove from heat.

2. Add Kellogg’s Rice Krispies cereal. Stir until well coated.

3. Using buttered spatula or wax paper evenly press mixture into 13 x 9 x 2-inch pan coated with cooking spray. Cool. Cut into 2-inch squares. Best if served the same day.

**Nutrition Information**



**Proportional Relationships**

**in Baking Project**



**Group Names \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_**

**Directions:** Answer the following questions as a group using your knowledge of proportional relationships and the constant of proportionality.

1) Mr. Scott and Mrs. Seitz are comparing prices before buying Rice Krispies cereal. Help them

 find the best deal. Rice Krispies cereal costs $11.92 for 4 boxes at Walmart, and $7.78 for 2

 boxes at Wegman’s.

a) Create a table to compare the number of boxes of cereal to the cost for 1, 2, 3, 4, and

 5 boxes at each grocery store:

 **Walmart: Wegman’s:**

|  |  |
| --- | --- |
| Number of cereal boxes | Cost($) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| Number of cereal boxes | Cost($) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

b) What is the unit price of Rice Krispies cereal at each store?

 Walmart\_\_\_\_\_\_\_\_\_\_\_\_ Wegman’s \_\_\_\_\_\_\_\_\_\_\_\_\_

c) Which is the better deal? Explain why.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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d) Write a rule for each table.

 Walmart \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Wegman’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_

e) What is the constant of proportionality and what does it mean in this situation?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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2) Using your recipe, we must figure out how much of each ingredient we need.

a) Create tables that show how much butter (in tablespoons), marshmallows (in cups),

 and Rice Krispies cereal (in cups) you will need to make one, two, three, and “x” batches of

 Rice Krispie Treats:

|  |  |
| --- | --- |
| # of batches | Rice Krispies(cups) |
|  |  |
|  |  |
|  |  |
| x |  |

|  |  |
| --- | --- |
| # of batches | Butter (tbsp.) |
|  |  |
|  |  |
|  |  |
| x |  |

|  |  |
| --- | --- |
| # of batches | Marshmallows(cups) |
|  |  |
|  |  |
|  |  |
| x |  |

 b) Is the amount of butter proportional to the number of batches? \_\_\_\_\_\_\_\_\_\_\_\_

 If yes, what is the constant of proportionality? \_\_\_\_\_\_\_\_\_\_\_

Write a rule that relates the number of batches to the amount of butter needed. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) Are the cups of marshmallows proportional to the number of batches? \_\_\_\_\_\_\_\_\_\_\_

 If yes, what is the constant of proportionality? \_\_\_\_\_\_\_\_\_\_\_

Write a rule that relates the number of batches to the cups of marshmallows needed. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d) Are the cups of Rice Krispies proportional to the number of batches? \_\_\_\_\_\_\_\_\_\_\_

 If yes, what is the constant of proportionality? \_\_\_\_\_\_\_\_\_\_\_

 Write a rule that relates the number of batches to the cups of Rice Krispies needed.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) Now let’s explore whether there are proportional relationships between the ingredients. The

 table below compares the number of cups of marshmallows to the number of cups of Rice

 Krispies.

a) Find the missing values in the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Marshmallows (cups) x | 4 | 6 | 8 | 10 |
| Rice Krispies (cups) y | 6 | 9 |  |  |

b) Is the amount of marshmallows used proportional to the amount of Rice

 Krispies? \_\_\_\_\_\_\_\_\_\_

 If yes, what is the constant of proportionality? \_\_\_\_\_\_\_\_\_\_\_\_

 Write a rule that relates the cups of Rice Krispies to the cups of marshmallows.

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) If we have 11 cups of marshmallows, do we have enough to make 3 batches of Rice

 Krispie Treats? \_\_\_\_\_\_\_\_\_

 If not, how many batches could we make? \_\_\_\_\_\_\_\_\_\_

d) If we have 16 cups of marshmallows, how many batches could we make? \_\_\_\_\_\_\_\_\_\_

 How many cups of Rice Krispies do we need to make that many batches? \_\_\_\_\_\_\_\_\_\_

e) Plot the ordered pairs from the table on the graph below. Make sure to label your x

 and y-axes:

 y



 x

 f) Does the graph show a proportional relationship? \_\_\_\_\_\_\_\_\_\_\_

 Explain how you know. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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 g) What point on the graph shows the unit rate? ( , )

 What does it mean in this situation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) Now that we’ve made our Rice Krispie Treats, we need to figure out how to distribute them equally

 between the students (and teachers, of course!).

 a) If we have 10 math students and 2 teachers, How many different ways can we divide the Rice

 Krispie Treats equally using one batch (one 9 x 13 inch pan)? \_\_\_\_\_\_\_\_\_\_

 How many would each person receive using each method? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b) How many different ways could we divide them equally using 2 batches? \_\_\_\_\_\_\_\_\_\_

 How many would each person receive using each method? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c) How many different ways could we divide them equally using 3 batches? \_\_\_\_\_\_\_\_\_\_\_

 How many would each person receive using each method? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5) If we cut one 9 x 13 inch pan into 24 squares, and each person ate 4, how many grams of fat would

 each person consume? \_\_\_\_\_\_\_\_\_\_\_\_\_

 How many grams of sugar? \_\_\_\_\_\_\_\_\_\_\_\_\_

 What percentage of iron? \_\_\_\_\_\_\_\_\_\_\_\_\_

6) Now it’s time to eat them. Enjoy!