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You have been given the special task of baking all of the cookies for your brother's $13^{\text {th }}$ Birthday party. You decide to designate some friends to help you bake as many cookies as possible.

Below is the recipe for Malted Milk Chocolate Chip Cookies (Drummond, 2011).

## Ingredients

- 2 sticks unsalted butter, softened
- 3/4 cup golden brown sugar
- 3/4 cup granulated sugar
- 2 whole eggs
- 2 teaspoons vanilla extract
- $1 / 2$ cup (rounded) malted milk powder
- 2 cups all-purpose flour
- $11 / 4$ teaspoon baking soda
- $11 / 4$ teaspoon salt
- One 12 -ounce bag milk chocolate chips


## Directions

Preheat the oven to 375 degrees $F$. Cream the butter, then add both sugars and cream until fluffy. Add the eggs and beat slightly, then add the vanilla and beat until combined. Add the malted milk powder and beat until combined.
In a separate bowl, sift together the flour, baking soda and salt. Add to the butter mixture, beating gently until just combined. Add the chocolate chips and stir in gently.
Drop by teaspoonfuls (or use a cookie scoop) on an ungreased baking sheet, leaving plenty of space between the cookies (they spread out quite a bit). Bake for 9 to 11 minutes. The cookies will be very flat and very chewy. Allow to cool slightly before removing from pan with a spatula. Optional: Allow to cool completely, then use 2 cookies to make an ice cream sandwich. Add sprinkles to the sides of the ice cream, then wrap individually in plastic wrap.
http://www.foodnetwork.com/recipes/ree-drummond/malted-milk-chocolate-chip-cookiesrecipe/index.html

The table below shows the amounts of flour you and your friends have found in your pantry. Assume you and your friends have unlimited amounts of every other ingredient needed to make the muffins.

| Person | Amount of All-Purpose <br> Flour | Batches Made |
| :--- | :--- | :---: |
| You | 5 cups |  |
| Caryn | 7.5 cups |  |
| Miguel | 4 cups |  |
| Tyauna | 12.5 cups |  |

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1. Determine the number of batches (including portions) of cookies you and your friends can make and write your answer in the table above. Use the space below to show your work for each person.
2. Write a general rule for the number of batches you can make with $n$ amount of flour.
3. How many full batches can you and your friends make for the party? Show all work below.
4. How many batches (including portions) can you and your friends make? Show all work below.
5. Let's say you have some amount less than 2 sticks of butter in your refrigerator. You still have just 5 cups of flour. Explain how you would figure out how many batches of cookies you could make.
