**Galactic Chocolate Chip Pancakes**

Your task is to take what you know about the composition of “galactic chocolate chip pancakes” and relate that to a recipe for spiral galaxies. First one done correctly gets the first pancake!

Directions: Add up the “mass” in cups of all of the dry ingredients (white rows). To find the weight percent, divide the mass of each ingredient by the total mass. You may find that it is easier to write 0.5 instead of 50%. Once you have found the weight percent for each ingredient, multiply that decimal by the mass of the galaxy, **8x1040kg**. Record that answer in the corresponding galaxy ingredient.

|  |  |  |
| --- | --- | --- |
|  | Weight % |  |
| 4 cups flour |  | \_\_\_\_\_\_\_\_\_\_\_\_ HI, HII, H2 regions |
| 0.375 cups (6 tbsp) Sugar |  | \_\_\_\_\_\_\_\_\_\_\_\_ He |
| 0.0625 cups (1 tbsp) Baking powder |  | \_\_\_\_\_\_\_\_\_\_\_\_ Dust |
| 0.031 cups (½tbsp) Baking soda |  | \_\_\_\_\_\_\_\_\_\_\_\_ Other gases (C, N, O) |
| 0.031 cups (½ tbsp) Salt |  | \_\_\_\_\_\_\_\_\_\_\_\_ Other molecules (CO, HCN, H2O) |
| ½ cup Chocolate Chips |  | \_\_\_\_\_\_\_\_\_\_\_\_ Stars |
| 4 cups milk  4 eggs | | = Gravity binding the galaxy |

\_\_\_\_\_\_\_\_ cups: Total pancake “mass” = Total galaxy mass: 8x1040kg

1 cup of chocolate chips = 100 Billion (1x1011 stars)