Name: $\qquad$

## A catered affair

You have been hired by the George Washington Middle School to cater an awards banquet. You will be in charge of serving gingerbread and punch to 100 guests. Each person will be served at least 4 square inches of gingerbread and 8 oz . of punch. Decide how many times you will need to make each recipe to serve people attending the banquet and how much of each ingredient you will need in order to make the recipes. In order to avoid waste and cut cost, determine the smallest number of ingredients needed to cover the consumption requirements of your clients. Each member of your group should make at least $\$ 25$ profit from catering the event.

In your group of four, consider the following:
What steps will you need to follow to determine the number of recipes needed for the gingerbread and the punch?

How will you determine the amount of each ingredient needed? The chart below may help to show amounts of ingredients needed for multiple recipes. Consider using fractions of recipes.

| Ingredients for one <br> recipe | Ingredients for <br> recipes | Ingredients for <br> recipes | Ingredients for <br> recipes |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| Serves |  |  |  |

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## Cost calculation chart

| Item | Unit cost | Amount needed | Cost for amount <br> needed |
| :--- | :--- | :--- | :--- |
| Margarine | $2 \mathrm{cups} / \$ 1.75$ |  |  |
| Sugar | $5 \mathrm{lbs} / \$ 2.49$ |  |  |
| Molasses | $12 \mathrm{oz} / \$ 2.69$ |  |  |
| Flour | $5 \mathrm{lbs} / \$ 1.99$ |  |  |
| Cinnamon | $2.5 \mathrm{oz} / \$ 1.95$ |  |  |
| Ginger | $1.62 \mathrm{oz} / \$ 3.50$ |  |  |
| Cloves | $1.8 \mathrm{oz} / \$ 1.29$ |  |  |
| Salt | $26 \mathrm{oz} / \$ 0.45$ |  |  |
| Baking soda | $8 \mathrm{oz} / \$ 0.39$ |  |  |
| Eggs | $1 \mathrm{doz} / \$ 0.89$ |  |  |
| KoolAid | $1 \mathrm{pkg} / \$ 0.19$ |  |  |
| Pineapple juice | $46 \mathrm{fl} \mathrm{oz} / \$ 2.15$ |  |  |
| Ginger ale | $32 \mathrm{fl} \mathrm{oz} / \$ 1.09$ |  |  |
|  |  |  |  |

Determine the amount you need to charge for each guest in order for each of you to earn a $\$ 25$ profit. (Profit equals money received from the customer minus your cost for food items.) You may choose to make the gingerbread and punch for your class as a special treat.
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## Catering recipes

## Gingerbread recipe

$3 / 4$ cup margarine or butter
$3 / 4$ cup sugar
$11 / 2$ cups molasses
$31 / 4$ cups sifted flour
1 tsp. cinnamon
1 tsp. ginger
$1 / 2$ tsp. cloves
$1 / 2$ tsp. salt
1 cup hot water
1 Tbsp. baking soda
3 beaten eggs
Cream margarine and sugar. Add molasses and blend. Sift flour, salt, and spices together. Combine baking soda and water. Add dry ingredients alternately with hot water. Add beaten eggs. Place in a greased and floured $8 \times 12$ pan. Bake at 350 degrees for approximately 30 minutes.

## Punch

2 packages KoolAid - any flavor
1 large can pineapple juice
2 cups sugar
2 quarts water
1 quart ginger ale
Boil sugar and water. Add KoolAid to hot water. Cool and add juice. Add ginger ale when ready to serve.

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## Apple Pan Dowdy: How many recipes?

1. The following recipe serves 8 people. You are planning a party for 16 people. How many times would you need to make this recipe to serve your guests? How much of each ingredient would you need to make your recipes? Write your new recipe in the chart.

## Apple Pan Dowdy

| Ingredients for 8 | Ingredients for 16 | Ingredients for 20 |
| :---: | :---: | :---: |
| $1 / 2$ cup brown sugar |  |  |
| $1 / 4$ cup chopped walnuts |  |  |
| $1 / 4$ cup raisins |  |  |
| 3 cups apples, sliced |  |  |
| $1 / 4$ cup butter, softened |  |  |
| $2 / 3$ cup sugar |  |  |
| 2 eggs, beaten |  |  |
| 4 tsp baking powder |  |  |
| $1 / 2$ tsp salt |  |  |
| $1 \frac{1}{2}$ cups milk |  |  |
| $2 \frac{1}{4}$ cups flour |  |  |

$\qquad$
2. How many times would you need to make this recipe to serve 20 people? How much of each ingredient would you need to make your new recipe? Place your new recipe in the chart.
3. Mrs. Lowe was making this recipe one day, but she realized she only had $1 / 4$ cup of brown sugar. How much of each ingredient should she use to make sure the recipe tastes good?
4. Your class is having a celebration and you have promised to make Apple Pan Dowdy for the whole class. How many recipes would you need to make to serve your class? How would you determine the amount of ingredients to use? Show your new recipe in a chart below.

| Ingredients for 8 people | Ingredients for my class (___ people) |
| :--- | :--- |
|  |  |

