SCALE CITY

KET

The Road to Proportional Reasoning: NAVIGATION GUIDE & PRINTABLE FORMS

World Chicken Festival: Sunnyside Up

Welcome to "Sunnyside Up." This interactive opens to a word problem, a shopping list, and a menu featuring food items.

If you click on the "Help" button, you will see that the ultimate goals of this interactive are to un-ghost the food images and complete the shopping list.

Click on one of the four menu items to begin your calculations.

"Check Answers" will reveal whether your answers are correct. There is a small margin of errors in some of the questions, since you might come up with slightly different answers. The exact answer will pop up in place of your approximate answer.

For the biscuit recipe conversion chart, hitting the "Check Answers" button will indicate (by color) if your answers are correct (green) or incorrect (red).

Text of Help Boxes for "Sunnyside Up"

The help boxes include interactive directions and mathematical hints to assist with calculations.

Help 1: Your goal is to un-ghost all the images for your family's dinner and complete your shopping list. To do that, all the questions for each menu item must be answered correctly. Start with one of the links at the top of the page and work your way through the menu. Check the "Help" on each page for specific tips and hints.

Help 2: Try to un-ghost the pie by answering all of the questions correctly. Hint for #1: To find out how many pies you need, divide the total number of guests by the number of servings in one pie.

Help 3: Try to un-ghost the iced tea by answering all of the questions correctly. Hint for #1: Divide the total number of guests by the number seated at each table. Then multiply this number by the quantity of tea needed for each table.

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Help 4: Use the quantities in the handwritten recipe and the scale factor to calculate how much you'll need of each ingredient. When you click or mouse over each cell in the table's first column, information will appear in the box below to help you complete the second column. Hint for #1: How many biscuits do you need to serve your family two biscuits each? Divide that number by the number of biscuits in the original recipe.

Help 5: Click through the scenario (by clicking the "Double" box) explaining the relationship between the skillet size and chicken legs. Once you get to the end, try to un-ghost the chicken by answering all of the questions correctly. If you want to go back to the beginning, just click on any of the other pages and then come back to the "Chicken" page.

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"Sunnyside Up" Questions

Dessert

First things first: Pie! One 9-inch pie makes 6 slices. All 108 people want a piece of pie.

1. How many whole pies do you need to bring? _____ pies
2. Half of your family wants about 4 ounces of vanilla ice cream on the side. How many total ounces do you need? _____oz.
3. A tub of vanilla ice cream contains 32 oz. How many tubs do you need to bring? Note: You can't buy part of a tub. ____tubs

Iced Tea

Next up: Iced tea. Each table of 4 needs 64 oz. of tea.

1. How many ounces of iced tea do you need for all 108 people? _____oz.
2. How many gallons is this? Note 128 oz. = 1 gallon. Use a decimal. _____ gallons.
3. If it takes 4 teabags to make a gallon of tea, how many teabags do you need in total? Note: You CAN make half gallons of tea. _____ tea bags

Biscuits

Get baking: Biscuits. Here's your grandma's secret biscuit recipe (don't share it with anyone!) It makes 1 dozen biscuits.

1. If all 108 people take 2 biscuits, by how much do you need to scale up all of the ingredients in the recipe? _____ times
2. Use the recipe and the scale factor to fill in the chart. Express your answers in decimals.

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Secret Biscuit Recipe
2 cups of flour
1 tbsp baking powder
1/2 tsp salt
1/4 cup shortening
3/4 cup milk

Ingredients

Flour	_____ cups	_____ 5-lb. bags
Baking powder	_____ tbsp	_____ 10-oz. packs
Salt	_____ tsp	_____ 26-oz. packs
Shortening	_____ cups	_____ 3-lb. cans
Milk	_____ cups	_____ quarts

Chicken

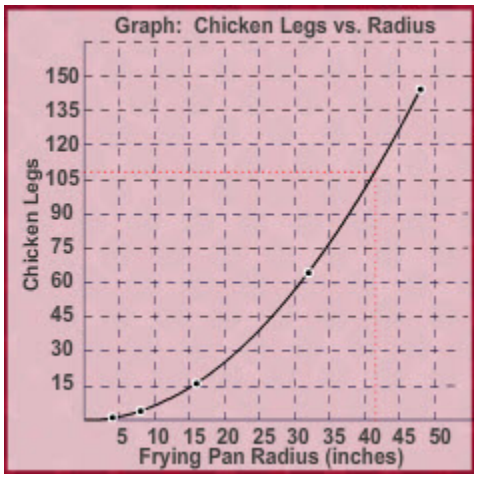
Finally: The chicken. You have an endless supply of chicken legs, but you want to cook everyone a single leg at the same time.

1. If the radius were directly proportional to the number of chicken legs, what size skillet would you need to cook 108 legs? (A 4-inch skillet cooks 1 leg.)

_____ inches

2. Fortunately, this isn't a directly proportional situation. Use the graph to figure out the real radius you need to make 108 chicken legs all at once.

_____ inches



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