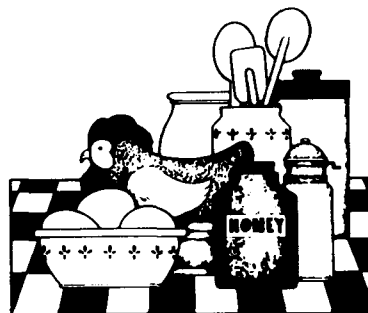


# Ingredient Substitutions and Food Yields



Can you answer the following questions?

- How many cups of grated cheese are in a one-pound block?
- If a recipe calls for three cups of cooked rice, how many cups of uncooked rice should be prepared?
- How many cups of nutmeats are in a one-pound package?

These and many more questions can be answered by this handy chart on food yields. Keep it nearby when preparing a meal or making out your shopping list. It's a real timesaver!

INGREDIENT	AMOUNT	SUBSTITUTES
Allspice	1 teaspoon	• ½ teaspoon cinnamon and ¼ teaspoon ground cloves
Apple pie spice	1 teaspoon	• ½ teaspoon cinnamon, ¼ teaspoon nutmeg and ¼ teaspoon cardamom
Arrowroot starch	1½ teaspoons	• 1 tablespoon flour • 1½ teaspoons cornstarch
Baking powder	1 teaspoon	• ½ teaspoon baking soda and ¼ teaspoon cream of tartar • ¼ teaspoon baking soda and ½ cup sour milk or buttermilk (decrease liquid called for in recipe by ¼ cup) • ¼ teaspoon baking soda and ½ tablespoon vinegar or lemon juice used with sweet milk to make ½ cup (decrease liquid called for in recipe by ½ cup)
Bay leaf	1 whole	• ¼ teaspoon crushed
Beau Monde seasoning	1 teaspoon	• 1 teaspoon seasoning or seasoned salt • ½ teaspoon table salt • ½ teaspoon Mei Yen seasoning
Broth, beef or chicken	1 cup	• 1 bouillon cube dissolved in 1 cup boiling water • 1 envelope powdered broth base dissolved in 1 cup boiling water • 1 teaspoon powdered broth base dissolved in 1 cup boiling water
Butter	1 cup	• ⅞ to 1 cup hydrogenated fat and ½ teaspoon salt • ¾ cup lard plus ½ teaspoon salt • 1 cup margarine
Catsup	1 cup	• 1 cup tomato sauce, ½ cup sugar and 2 tablespoons vinegar (for use in cooking)
Chicken stock base, instant	1½ teaspoons	• 1 chicken bouillon cube
Chicken stock base, instant	1 tablespoon dissolved in 1 cup water	• 1 cup canned or homemade chicken broth or chicken stock
Chili sauce	1 cup	• 1 cup tomato sauce, ¼ cup brown sugar, 2 tablespoons vinegar, ¼ teaspoon cinnamon, dash of ground cloves and dash of allspice
Chives, finely chopped	2 teaspoons	• 2 teaspoons green onion tops, finely chopped
Chocolate chips, semisweet	1 ounce	• 1 ounce sweet cooking chocolate
Chocolate, semisweet	1½ ounces	• 1 ounce unsweetened chocolate and 4 teaspoons sugar
Chocolate, semisweet chips, melted	6-ounce package	• 2 squares unsweetened chocolate, 2 tablespoons shortening and ½ cup sugar
Chocolate, unsweetened	1 ounce or square	• 3 tablespoons cocoa and 1 tablespoon fat
Cocoa	¼ cup or 4 tablespoons	• 1 ounce (square) chocolate (decrease fat called for in recipe by ½ tablespoon)
Coconut	1 tablespoon grated, dry	• 1½ tablespoons fresh coconut, grated
Coconut cream	1 cup	• 1 cup whipping cream
Coconut milk	1 cup	• 1 cup whole or 2% milk
Corn syrup	1 cup	• 1 cup sugar and ¼ cup liquid (use whatever liquid is called for in the recipe) • 1 cup honey

INGREDIENT	AMOUNT	SUBSTITUTES
Cornstarch (for thickening)	1 tablespoon	• 2 tablespoons all-purpose flour • 2 tablespoons granular tapioca
Cracker crumbs	¾ cup	• 1 cup dry bread crumbs
Cream, half-and-half	1 cup	• ¾ cup milk and ¼ tablespoon butter or margarine • 1 cup evaporated milk, undiluted
Cream, heavy (36% to 40% fat)	1 cup	• ¾ cup milk and ¼ cup butter or margarine (for use in cooking and baking)
Cream, light (18% to 20% fat)	1 cup	• ¾ cup milk and 3 tablespoons butter or margarine (for use in cooking and baking) • 1 cup evaporated milk, undiluted
Cream, whipped		• Chill a 13 oz. can of evaporated milk for 12 hours. Add 1 teaspoon lemon juice. Whip until stiff.
Dill plant, fresh or dried	3 heads	• 1 tablespoon dill seed
Egg	1 whole (3 tablespoons)	• 3 tablespoons and 1 teaspoon thawed frozen egg • 2½ tablespoons sifted, dry whole egg powder and 2½ tablespoons lukewarm water • 2 yolks and 1 tablespoon water (in cookies) • 2 yolks (in custards, cream fillings and similar mixtures)
Egg white	1 white (2 tablespoons)	• 2 tablespoons thawed frozen egg white • 2 tablespoons sifted, dry egg white powder and 2 tablespoons lukewarm water
Egg yolk	1 yolk (1½ tablespoons)	• 2 tablespoons sifted, dry egg yolk powder and 2 teaspoons water • 1½ tablespoons thawed frozen egg yolk
Flour, all-purpose (for thickening)	1 tablespoon	• 1½ teaspoons cornstarch, arrowroot starch, potato starch or rice starch • 1 tablespoon granular tapioca • 1 tablespoon waxy rice flour • 1 tablespoon waxy corn flour • 2 tablespoons browned flour • 1½ tablespoons whole wheat flour • ½ tablespoon whole wheat flour and ½ tablespoon all-purpose flour
Flour, all-purpose Note: Specialty flours added to yeast bread recipes will result in a reduced volume and a heavier product.	1 cup sifted	• 1 cup and 2 tablespoons cake flour • 1 cup minus 2 tablespoons unsifted all-purpose flour • 1½ cups bread crumbs • 1 cup rolled oats • ½ cup cornmeal or soybean flour and ⅓ cup all-purpose flour • ½ cup cornmeal, bran, rice flour, rye flour or whole wheat flour and ½ cup all-purpose flour • ¾ cup whole wheat flour or bran flour and ¼ cup all-purpose flour • 1 cup rye or rice flour • ¼ cup soybean flour and ¾ cup all-purpose flour
Flour, cake	1 cup sifted	• 1 cup minus 2 tablespoons sifted all-purpose flour
Flour, self-rising	1 cup	• 1 cup minus 2 teaspoons all-purpose flour and 1½ teaspoons baking powder and ½ teaspoon salt
Flour, whole wheat		• substitute whole wheat flour for ¼ to ½ of white flour called for in recipe

INGREDIENT	AMOUNT	SUBSTITUTES
Garlic	1 clove, small	• ¼ teaspoon garlic powder
Gelatin, flavored	3-ounce package	• 1 tablespoon plain gelatin and 2 cups fruit juice
Ginger	¼ teaspoon, powdered	• 1 tablespoon candied ginger rinsed in water to remove sugar and finely cut • 1 tablespoon raw ginger
Herbs, fresh	1 tablespoon, finely cut	• 1 teaspoon dried herbs
Honey	1 cup	• 1¼ cups sugar and ¼ cup liquid (use liquid called for in recipe)
Horseradish	1 tablespoon, fresh	• 2 tablespoons bottled
Lemon	1 teaspoon juice	• ½ teaspoon vinegar
Lemon	1 medium	• 2 to 3 tablespoons juice and 1 to 2 teaspoons rind
Lemon peel, dried	1 teaspoon	• 1 to 2 teaspoons grated fresh lemon peel • grated peel of 1 medium lemon • ½ teaspoon lemon extract
Macaroni (4 cups cooked)	2 cups, uncooked	• 2 cups spaghetti, uncooked • 4 cups noodles, uncooked
Maple sugar	½ cup	• 1 cup maple syrup
Maple sugar (grated and packed)	1 tablespoon	• 1 tablespoon white, granulated sugar
Marshmallows, miniature	1 cup	• 10 large
Mayonnaise (for use in salads and salad dressings)	1 cup	• ½ cup yogurt and ½ cup mayonnaise • 1 cup sour cream • 1 cup cottage cheese pureed in a blender
Mei Yen seasoning	1 teaspoon	• 1 teaspoon Bean Monde seasoning • ½ teaspoon table salt
Milk, buttermilk	1 cup	• 1 cup plain yogurt
Milk, buttermilk or sour	1 cup	• 1 cup minus one tablespoon sweet milk and 1 tablespoon lemon juice or vinegar (allow to stand 5 to 10 minutes) • 1 cup sweet milk and 1¼ teaspoons cream of tartar
Milk, evaporated (whole or skim)	½ cup plus ½ cup water	• 1 cup liquid whole milk
Milk, skim	1 cup	• 4 to 5 tablespoons non-fat dry milk powder and enough water to make one cup, or follow manufacturer's directions
Milk, skim	¼ cup	• 4 teaspoons non-fat dry milk powder plus water to make ¼ cup, or follow manufacturer's directions • 2 tablespoons evaporated skim milk and 2 tablespoons water
Milk, sweetened condensed	1 can (about 1¼ cup)  1 cup	• Heat the following ingredients until sugar and butter are dissolved: ¼ cup and 2 tablespoons evaporated milk 1 cup sugar 3 tablespoons butter or margarine • Heat the following ingredients until sugar and butter are dissolved: ¼ cup evaporated milk ¾ cup sugar 2 tablespoons butter or margarine • Add 1 cup plus 2 tablespoons dry milk to ½ cup warm water. Mix well. Add ¾ cup sugar and stir until smooth.
Milk, whole	1 cup	• 1 cup reconstituted non-fat dry milk and 2 teaspoons butter or margarine • ½ cup evaporated milk and ½ cup water • 4 tablespoons whole dry milk and 1 cup water, or follow manufacturer's directions • 1 cup fruit juice or 1 cup potato water (for use in baking) • ½ cup non-fat dry milk and 2 teaspoons butter or margarine and ¾ cup water
Mushrooms	1 pound fresh	• 3 ounces dried mushrooms • 1 10-ounce can (8 ounces drained weight)

INGREDIENT	AMOUNT	SUBSTITUTES
Mushrooms, powdered	1 tablespoon	• 3 tablespoons whole, dried mushrooms • 4 ounces fresh • 2 ounces canned
Mustard, dry	1 teaspoon	• 1 tablespoon prepared mustard
Onion, fresh	1 small	• rehydrate 1 tablespoon instant minced onion
Onions, instant minced	1 tablespoon	• 2 tablespoons fresh onion, chopped
Onion powder	1 tablespoon	• 1 medium onion, chopped • 4 tablespoons fresh chopped onion
Orange	1 medium	• 6 to 8 tablespoons juice
Orange peel, dried	1 tablespoon	• 2 to 3 tablespoons grated fresh orange peel • grated peel of 1 medium orange
Orange peel, dried	2 teaspoons	• 1 teaspoon orange extract
Orange peel, fresh	1 medium	• 2 to 3 tablespoons grated fresh orange peel
Parsley, dried	1 teaspoon	• 3 teaspoons fresh parsley, chopped
Peppers, green bell	1 tablespoon, dried	• 3 tablespoons fresh green pepper, chopped
Peppers, red bell	1 tablespoon, dried	• 3 tablespoons fresh red bell pepper, chopped • 2 tablespoons chopped pimiento
Peppermint, dried	1 tablespoon	• ¼ cup chopped fresh mint
Pimiento	2 tablespoons, chopped	• rehydrate 1 tablespoon-dried red bell peppers • 3 tablespoons fresh red bell pepper, chopped
Pumpkin pie spice	1 teaspoon	• ½ teaspoon cinnamon, ¼ teaspoon ginger, ¼ teaspoon allspice and ¼ teaspoon nutmeg
Rennet	1 tablet	• 1 tablespoon liquid rennet
Rice (3 cups cooked)	1 cup regular, uncooked	• 1 cup uncooked converted rice • 1 cup uncooked brown rice • 1 cup uncooked wild rice
Shortening, melted	1 cup	• 1 cup cooking oil (cooking oil should not be substituted if recipe does not call for melted shortening)
Shortening, solid (used in baking)	1 cup	• 1 cup minus 2 tablespoons lard • 1½ cups butter (decrease salt called for in recipe by ½ teaspoon) • 1½ cups margarine (decrease salt called for in recipe by ½ teaspoon)
Sour cream, cultured	1 cup	• ¾ cup sour milk and ¼ cup butter or margarine • ¾ cup buttermilk and ¼ cup butter or margarine • Blend until smooth: ½ cup buttermilk, 1 tablespoon lemon juice and 1 cup cottage cheese • 1 cup plain yogurt • ¾ cup milk, ¾ teaspoon lemon juice and ¼ cup butter or margarine
Spearmint, dried	1 tablespoon	• ¼ cup chopped fresh mint
Sugar, brown	1 cup firmly packed	• 1 cup granulated sugar
Sugar, white	1 teaspoon	• ¼ teaspoon noncaloric sweetener solution or follow manufacturer's directions
Sugar, white	1 cup	• 1 cup corn syrup (decrease liquid called for in recipe by ¼ cup) • 1½ cup molasses (decrease liquid called for in recipe by ½ cup) • 1 cup powdered sugar • 1 cup brown sugar, firmly packed • 1 cup honey (decrease liquid called for in recipe by ¼ cup) • 1¼ cup confectioners' sugar, packed
Tapioca, granular	1 tablespoon	• 2 tablespoons pearl tapioca
Tomatoes		
Fresh	2 cups, chopped	• 1 16-ounce can (may need to drain)
Juice	1 cup	• ½ cup tomato sauce and ½ cup water
Worcestershire Sauce	1 teaspoon	• 1 teaspoon bottled steak sauce
Yeast, active dry	1 tablespoon	• 1 cake yeast, compressed • 1 package (¼ ounce) active dry yeast
Yogurt, plain	1 cup	• 1 cup buttermilk • 1 cup cottage cheese blended until smooth • 1 cup sour cream

## YIELD EQUIVALENCIES

FOOD	THIS MUCH	EQUALS THIS MUCH
APPLES	1 pound (3 medium)	2¾ to 3 cups sliced
BACON	8 slices	½ cup crumbled
BANANAS	1 pound (3 medium)	2½ cups sliced 2 cups mashed
BARLEY		
● regular	1 cup, uncooked	4 cups cooked
● quick	1 cup, uncooked	3 cups cooked
BEANS, dry	1 cup, uncooked	3 cups cooked
BREAD CRUMBS	1 slice, dry 1 slice, soft	¼ to ⅓ cup crumbs ½ to ¾ cup crumbs
CABBAGE	1 pound	3½ to 4½ cups shredded
CANDIED FRUIT OR PEELS	½ pound	1¼ cups cut up
CHEESE		
● American	1 pound	4 to 5 cups shredded
● Cheddar	1 pound	4 cups shredded
COCONUT, flaked or shredded	1 pound	5 cups
CHOCOLATE		
● morsels or chips	6-ounce package	1 cup
● cocoa	1 pound	4 cups
● chocolate, unsweetened	½ pound	8 (1-ounce each) squares
COFFEE	1 pound	40 to 50 servings
CORNMEAL	1 pound 1 cup uncooked	3 cups dry 4 cups cooked mush
CRACKERS		
● graham	10 crackers	1 cup fine crumbs
● soda	16 crackers	1 cup coarse crumbs
	22 crackers	1 cup fine crumbs
CRANBERRIES, fresh uncooked	1 pound	4 cups
CREAM, heavy whipping	1 cup (½ pint)	2 cups whipped
DATES, pitted and cut up	1 pound	2½ cups
FAT		
● butter or margarine, solid	1 pound (4 sticks) ¼ pound (1 stick)	2 cups ½ cup or 8 tablespoons
● butter, whipped	1 pound	3 cups
● oils	1 quart	4 cups
● shortening	1 pound	2½ cups
FIGS, dried and cut fine	1 pound	2¾ cups
FLOUR		
● corn	2 pounds	8 cups
● gluten, sifted	2 pounds	6½ cups
● rice	2 pounds	
—sifted		7 cups
—stirred, spooned		5½ cups
● rye	2 pounds	
—light, sifted		10 cups
—dark, sifted		7 cups
● soy	2 pounds	
—full-fat, sifted		15 cups
—low-fat		11 cups
● wheat		
—all-purpose, sifted	5 pounds	20 cups
—all-purpose, sifted	2 pounds	8 cups
—unsifted, spooned	2 pounds	7 cups
—bread, sifted	2 pounds	8 cups
—cake, sifted	2 pounds	9¼ cups

FOOD	THIS MUCH	EQUALS THIS MUCH
FLOUR (cont'd)		
—cake, spooned	2 pounds	8¼ cups
—pastry, sifted	2 pounds	9 cups
—self-rising, sifted	2 pounds	8 cups
—whole-wheat, stirred*	2 pounds	6¾ cups
MARSH- MALLOWS		
● standard size	1 pound	4 cups
● miniature	1 pound	13½ cups
NUTS		
● almonds		
—in shell	1 pound	1 to 1¼ cups nutmeats
—shelled	1 pound	3 cups blanched whole
● English walnuts		
—in shell	1 pound	1¾ cups nutmeats
—shelled	1 pound	4½ cups halves 3¾ cups chopped
● filberts		
—in shell	1 pound	1½ cups nutmeats
—shelled	1 pound	¾ to 3½ cups nutmeats
● peanuts		
—in shell	1 pound	2 to 2¼ cups nut meats
—shelled	1 pound	3 to 3½ cups nut meats
● pecans		
—in shell	1 pound	2¼ cups nut meats
—shelled	1 pound	4 to 4½ cups halves 3 - 3¾ cups chopped
OATS, rolled	1 cup uncooked 1 ounce uncooked	1¼ cups cooked ½ cup uncooked
ONION	1 small 1 medium 1 large	¼ cup chopped ½ cup chopped 1 cup chopped
PASTA		
● macaroni	1 pound 1 cup uncooked	4 cups, uncooked 2 to 2¼ cups cooked
● noodles	1 cup uncooked	1¾ cups cooked
● spaghetti, 2-inch pieces	1 pound	4¾ cups uncooked 9 to 10 cups cooked
POPCORN	¼ cup kernels ½ cup kernels	6 cups popcorn 12 cups popcorn
POTATOES, white	1 pound (3 medium)	1½ to 2¼ cups cooked, diced or sliced 1¾ to 2 cups mashed
PRUNES, dried, whole and pitted	1 pound	2¼ cups
RAISINS	15-ounce package 1 pound	3 cups 3¾ cups
RICE		
● regular	1 cup uncooked	3 cups cooked
● minute	¾ cup uncooked	1¾ cups cooked
SHRIMP, fresh	¾ pound raw in shell 1 7-ounce package, frozen peeled, cooked 1 4½- or 5-ounce can	1 cup cooked and cleaned
SUGAR		
● brown	1 pound	2¼ cups firmly packed
● confectioners', unsifted	1 pound	3 to 4 cups
● granulated	1 pound 5 pounds	2¼ cups 11¼ cups
TEA, loose	1 pound	200 cups
TOMATOES	1 pound (3 medium)	1½ cups chopped ¾ cup sliced
ZUCCHINI	1 medium (5-6 ounces)	1 cup loosely packed, grated

## COMMON CAN SIZES

CAN SIZE	WEIGHT	CUPS	PRODUCTS
8 oz.	8 oz.	1	Fruits, vegetables, specialties for small families.
Picnic	10½ to 12 oz.	1¼	Mainly condensed soups. Some fruits, vegetables, meat, fish, specialties.
12 oz. vacuum	12 oz.	1½	Mainly for vacuum-packed corn.
No. 300	14 to 16 oz. (14 oz. to 1 lb.)	1¾	Pork and beans, baked beans, meat products, cranberry sauce, blueberries, specialties.
No. 303	16 to 17 oz. (1 lb. to 1 lb.-1 oz.)	2	Principal size for fruits and vegetables. Also some meat products, ready-to-serve soups, specialties.
No. 2	20 oz. (1 lb.-4 oz.) or 18 fl. oz. (1 pt.-2 fl. oz.)	2½	Juices, ready-to-serve soups, some specialties, pineapple, apple slices. No longer in popular use for most fruits and vegetables.
No. 2½	27 to 29 oz. (1 lb.-11 oz. to 1 lb.-13 oz.)	3½	Fruits, some vegetables (pumpkin, sauerkraut, spinach and other greens, tomatoes).
No. 3 cylinder or 46 fl. oz.	51 oz. (3 lb.-3 oz.) or 46 fl. oz. (1 qt.-14 fl. oz.)	5¾	Fruit and vegetable juices, pork and beans. Institutional size for condensed soups, some vegetables.
No. 10	6½ lb. to 7 lb. 5 oz.	12 to 13	Institutional size for fruits, vegetables and some other foods.

## OVEN TEMPERATURES

If your treasured family recipe describes oven temperatures as 'slow, moderate or hot, this quick reference chart will help you decide what temperature to set your oven.

OVEN DESCRIPTION	TEMPERATURE IN DEGREES
Very Slow Oven	250°-275°F
Slow Oven	300°-325°F
Moderate Oven	350°-375°F
Hot Oven	400°-425°F
Very Hot Oven	450°-475°F
Extremely Hot Oven	500°-525°F

## BAKING-PAN SIZES

PAN SIZE	BATTER AMOUNT	PAN SIZE	BATTER AMOUNT
<b>RECTANGULAR CAKE PANS</b>		<b>PIE PLATES</b>	
● 8 x 8 x 2" deep	6 cups batter	● 8 x 1¼" deep	3 cups filling to be level with top; 4 to 4½ cups filling, mounded
● 9 x 9 x 1½" deep	8 cups batter	● 9 x ½" deep	4 cups filling to be level with top; 5 to 6 cups filling, mounded
● 9 x 9 x 2" deep	10 cups batter	<b>LOAF PANS</b>	
● 13 x 9 x 2" deep	14 cups batter	● 8½ x 4½ x 2½" deep	6 cups batter
<b>ROUND CAKE PANS</b>		● 9 x 5 x 3" deep	8 cups batter
● 8 x 1½" deep	4 cups batter		
● 9 x 1½" deep	6 cups batter		

## EQUIVALENT MEASURES

THIS MUCH	EQUALS THIS MUCH	THIS MUCH	EQUALS THIS MUCH
1 gallon	4 quarts	¼ cup	4 tablespoons
1 quart	2 pints	⅓ cup	2 tablespoons
1 pint	2 cups	⅕ cup	1 tablespoon
8 quarts	1 peck	1 tablespoon	3 teaspoons
4 pecks	1 bushel	⅞ tablespoon	2½ teaspoons
1 cup	16 tablespoons	¾ tablespoon	2¼ teaspoons
⅞ cup	14 tablespoons	⅔ tablespoon	2 teaspoons
¾ cup	12 tablespoons	⅝ tablespoon	1⅞ teaspoons
⅔ cup	10½ tablespoons	½ tablespoon	1½ teaspoons
⅖ cup	10 tablespoons	⅙ tablespoon	1¼ teaspoons
½ cup	8 tablespoons	⅓ tablespoon	1 teaspoon
⅓ cup	6 tablespoons	¼ tablespoon	¾ teaspoon
¼ cup	5½ tablespoons		

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Adapted from material prepared by the University of Missouri



Cooperative Extension Service, Kansas State University, Manhattan

L-730

June 1985

Issued in furtherance of Cooperative Extension Work, acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, Richard D. Wootton, Associate Director. All educational programs and materials available without discrimination on the basis of race, color, national origin, sex, age, or disability.

File Code: Food Preparation—3-3

JR 11-94—10M; 11-89—3M; 5-89—5M; 6-88—5M; 6-85—10M