

KITCHEN MATH TEST

Name _____

Measuring

1. What is the best way to measure a solid ingredient like peanut butter?
 - a. Determine cups needed, fill cups (no packing or tapping), and level with a spatula.
 - b. Determine cups needed, pack ingredients into cup, level with a spatula, scrape ingredients into mixing bowl.
 - c. Determine amount needed, pour into liquid measuring cup, view at eye level, and add or take away if needed.
 - d. Determine amount needed, pour liquid into measuring cup, level with a spatula, and dump into mixing bowl.
2. When measuring liquids, view the measuring cup on a flat surface at _____ .
3. List three ingredients you would measure using a liquid measuring cup.

4. List three ingredients you would measure using dry measuring cups.

5. List three solid ingredients you would measure using dry measuring cups.

6. Standard dry/solid measuring cups come in what four sizes?

7. Measuring spoons are used for both _____ and _____ ingredients.
8. What are the standard four sizes for measuring spoons?

9. You should use measuring spoons when you are measuring less than how much?
10. What equipment and measuring method should you use for 1 cup brown sugar?
11. What equipment and measuring method should you use for $\frac{2}{3}$ cup oatmeal?



12. What equipment and measuring method should you use for $\frac{1}{2}$ cup flour?

13. What equipment and measuring method should you use for $\frac{1}{4}$ cup oil?

Equivalents

14. 1 Tablespoon = ____ teaspoons

15. 2 Tablespoons = ____ ounce

16. 1 pint = ____ fluid ounces

17. 1 cup = ____ fluid ounces

18. What is equivalent to 1 tablespoon?

- a. $\frac{1}{4}$ cup
- b. 3 teaspoons
- c. 2 teaspoons
- d. 4 teaspoons



19. What is the difference between a dash and a pinch?
- A. 1 dash (dry measure) = $\frac{1}{4}$ teaspoon or less;
1 pinch (dry measure) = $\frac{1}{8}$ teaspoon or less
 - B. 1 dash (dry measure) = $\frac{1}{8}$ teaspoon or less;
1 pinch (dry measure) = $\frac{1}{4}$ teaspoon or less
 - C. 1 dash (dry measure) = 2-3 teaspoons;
1 pinch (dry measure) = 1 teaspoon
 - D. None of the above

Abbreviations

20. What is the abbreviation for ounce?
21. What does lb. stand for?
22. What is the abbreviation for teaspoon?
23. What is the abbreviation for tablespoon?
24. True or false: If the measurement is plural, the abbreviation stays the same.

Temperature

25. Water freezes at ____° Fahrenheit and ____° Celsius.
Water boils at ____° Fahrenheit and ____° Celsius.



Measuring Systems

26. The most common kind of kitchen measurement in America is the _____ system.
27. What measuring system is based on tens?
28. What is the larger amount?
- $\frac{3}{4}$ cup or $\frac{2}{3}$ cup
 - $\frac{1}{4}$ cup or $\frac{1}{3}$ cup
 - 2 tablespoons or $\frac{1}{4}$ cup
29. If a recipe says it makes 12 cupcakes but you want to make 6 cupcakes, what amounts do you need for each ingredient?
- 1 cup flour = _____
 - 1 $\frac{1}{2}$ teaspoons baking powder = _____
 - 2 tablespoons milk = _____
 - $\frac{1}{4}$ teaspoon salt = _____
30. Double each ingredient:
- _____ 1 cup flour
 - _____ 2 Tbsp. sugar
 - _____ $\frac{1}{2}$ tsp. salt
 - _____ $\frac{3}{4}$ cup milk
31. Why should you cool a cake before removing it from the pan?
- It will taste better because it won't be as hot.
 - It will stay firmer because it will have more time to form to the side of the pan.
 - It won't stick to the pan and it pulls away from the sides and releases more easily.
 - It will be easier to apply the frosting or toppings once the cake is removed from the pan.



Ratios

32. Jill squeezed a lemon and got 4 ounces of lemon juice. She needs 32 ounces of juice for her party. How many lemons does she need?
- Ratio 2 to 1: $2/1 = 6/3$: 4 lemons
 - Ratio 1 to 4: $1/4 = 8/32$: 8 lemons
 - Ratio 1 to 5: $1/5 = 3/15$: 15 lemons
 - Ratio 4 to 1: $4/1 = 12/3$: 12 lemons
33. One pound of pasta makes 5 cups cooked. How many cups will 3 pounds make?
- Ratio 4 to 1: $4/1 = 12/3$: 12 oz.
 - Ratio 1 to 5: $1/5 = 3/15$: 15 cups
 - Ratio 2 to 1: $2/1 = 6/3$: 18 cups
 - Ratio 1 to 4: $1/4 = 8/32$: 24 cups
34. $2/2 = 4/\underline{\quad}$
35. $1/5 = 2/\underline{\quad}$
36. $1/3 = \underline{\quad}/9$
37. $3/4 = \underline{\quad}/8$
38. What is half of 1 quart water?
39. What is smaller: $1/3$ cup or 4 Tbsp.?



Food Costs

40. If you buy one pound of tomatoes at \$1.56 per lb. and three pounds of ground beef at \$3.44 per pound, what is your cost?
41. How much does 4 lb. of strawberries at \$2.35 per lb. cost?
42. How much does 7 lb. of potatoes at \$0.48 per lb. cost?
43. You paid \$3.27 for 2 lb. of peaches. What is the cost per pound?

Time

44. Steve is making steak and potatoes for his family. He would like to have dinner ready by 6:45 p.m. The prep time is 55 minutes. What time should Steve start cooking?
45. Susan's party will begin at 5:15. She assumes it will take 40 minutes to prepare. When should she start?
46. If you started cooking at 5:45 and you finished at 7:15, your total prep time was _____.
47. Amy would like to serve pasta salad at 7:00 p.m. The pasta salad takes 42 minutes to prepare. What time should Amy begin making the salad?



Measuring

1. What is the best way to measure a solid ingredient like peanut butter?
 - a. Determine cups needed, fill cups (no packing or tapping), and level with a spatula.
 - (b.)** Determine cups needed, pack ingredients into cup, level with a spatula, scrape ingredients into mixing bowl.
 - c. Determine amount needed, pour into liquid measuring cup, view at eye level, and add or take away if needed.
 - d. Determine amount needed, pour liquid into measuring cup, level with a spatula, and dump into mixing bowl.

2. When measuring liquids, view the measuring cup on a flat surface at Eye level.

3. List three ingredients you would measure using a liquid measuring cup.

Answers could include any of the following: water, milk, oil, juice, cream, syrup, sauce

4. List three ingredients you would measure using dry measuring cups.

Answers could include any of the following: flour, sugar, brown sugar, etc.

5. List three solid ingredients you would measure using dry measuring cups.

Answers could include any of the following: butter, peanut butter, shortening, etc.

6. Standard dry/solid measuring cups come in what four sizes?

1/4 cup 1/3 cup 1/2 cup 1 cup

7. Measuring spoons are used for both dry and liquid ingredients.

8. What are the standard four sizes for measuring spoons?

1/4 teaspoon 1/2 teaspoon 1 teaspoon 1 tablespoon

9. You should use measuring spoons when you are measuring less than how much?

1/4 cup

10. What equipment and measuring method should you use for 1 cup brown sugar?

1 cup dry measuring cup; pack firmly and level with a spatula

11. What equipment and measuring method should you use for 2/3 cup oatmeal?

1/3 cup dry measuring cup (measure twice); fill cup without packing or tapping and level with a spatula



12. What equipment and measuring method should you use for $\frac{1}{2}$ cup flour?
 $\frac{1}{2}$ cup dry measuring cup; fill cup without packing or tapping and level with a spatula
13. What equipment and measuring method should you use for $\frac{1}{4}$ cup oil?
Liquid measuring cup; pour to $\frac{1}{4}$ cup line and view at eye level. Add more or less to reach the correct level.

Equivalents

14. 1 Tablespoon = 3 teaspoons

15. 2 Tablespoons = 1 ounce

16. 1 pint = 16 fluid ounces

17. 1 cup = 8 fluid ounces

18. What is equivalent to 1 tablespoon?
- a. $\frac{1}{4}$ cup
 - b. 3 teaspoons
 - c. 2 teaspoons
 - d. 4 teaspoons



19. What is the difference between a dash and a pinch?
- (A.) 1 dash (dry measure) = $\frac{1}{4}$ teaspoon or less;
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 - C. 1 dash (dry measure) = 2-3 teaspoons;
1 pinch (dry measure) = 1 teaspoon
 - D. None of the above

Abbreviations

20. What is the abbreviation for ounce?
oz.

21. What does lb. stand for?
pound

22. What is the abbreviation for teaspoon?
tsp. or t.

23. What is the abbreviation for tablespoon?
Tbsp. or T.

24. True or false: If the measurement is plural, the abbreviation stays the same.
True

Temperature

25. Water freezes at 32° Fahrenheit and 0° Celsius.
Water boils at 212° Fahrenheit and 100° Celsius.



Measuring Systems

26. The most common kind of kitchen measurement in America is the English system.

27. What measuring system is based on tens?

Metric

28. What is the larger amount?

- a. $\frac{3}{4}$ cup or $\frac{2}{3}$ cup
- b. $\frac{1}{4}$ cup or $\frac{1}{3}$ cup
- c. 2 tablespoons or $\frac{1}{4}$ cup

29. If a recipe says it makes 12 cupcakes but you want to make 6 cupcakes, what amounts do you need for each ingredient?

- a. 1 cup flour = $\frac{1}{2}$ cup
- b. 1 $\frac{1}{2}$ teaspoons baking powder = $\frac{3}{4}$ teaspoon ($\frac{1}{2} + \frac{1}{4}$ teaspoon)
- c. 2 tablespoons milk = 1 tablespoon
- d. $\frac{1}{4}$ teaspoon salt = $\frac{1}{8}$ teaspoon (or 1 dash)

30. Double each ingredient:

- a. 2 cups 1 cup flour
- b. $\frac{1}{4}$ cup (4 Tbsp.) 2 Tbsp. sugar
- c. 1 tsp. $\frac{1}{2}$ tsp. salt
- d. 1 $\frac{1}{2}$ cups $\frac{3}{4}$ cup milk

31. Why should you cool a cake before removing it from the pan?

- a. It will taste better because it won't be as hot.
- b. It will stay firmer because it will have more time to form to the side of the pan.
- c. It won't stick to the pan and it pulls away from the sides and releases more easily.
- d. It will be easier to apply the frosting or toppings once the cake is removed from the pan.



Ratios

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 - d. Ratio 1 to 4: $1/4 = 8/32$: 24 cups
34. $2/2 = 4/$ 4
35. $1/5 = 2/$ 10
36. $1/3 =$ 3 /9
37. $3/4 =$ 6 /8
38. What is half of 1 quart water?
2 pints
39. What is smaller: $1/3$ cup or 4 Tbsp.?
4 Tbsp.



Food Costs

40. If you buy one pound of tomatoes at \$1.56 per lb. and three pounds of ground beef at \$3.44 per pound, what is your cost?

$$1 \times \$1.56 = \$1.56$$

$$3 \times \$3.44 = \$10.32$$

$$\$1.56 + \$10.32 = \$11.88$$

41. How much does 4 lb. of strawberries at \$2.35 per lb. cost?

$$4 \times \$2.35 = \$9.40$$

42. How much does 7 lb. of potatoes at \$0.48 per lb. cost?

$$7 \times \$0.48 = \$3.36$$

43. You paid \$3.27 for 2 lb. of peaches. What is the cost per pound?

$$\$3.27 \div 2 = \$1.64/\text{lb.}$$

Time

44. Steve is making steak and potatoes for his family. He would like to have dinner ready by 6:45 p.m. The prep time is 55 minutes. What time should Steve start cooking?

$$5:50$$

45. Susan's party will begin at 5:15. She assumes it will take 40 minutes to prepare. When should she start?

$$4:35$$

46. If you started cooking at 5:45 and you finished at 7:15, your total prep time was

$$\underline{1 \text{ hour } 30 \text{ minutes}}$$

47. Amy would like to serve pasta salad at 7:00 p.m. The pasta salad takes 42 minutes to prepare. What time should Amy begin making the salad?

$$6:18$$

