

Hospitality and Tourism

Culinary Arts

Multiple Choice Math Assessment Problems



All math problems address TEKS 130.226. Culinary Arts.

(1) The student applies advanced reading, writing, mathematics, and science skills for the food service industry. The student is expected to:

(C) calculate correctly using numerical concepts such as percentages and estimations in practical situations, including weight and measures.

Question 1. Larry is working in a restaurant as a cook. The restaurant splits tips between the wait staff and the cooks. If there are 4 cooks, 7 waiters, and 2 hostesses and the waiters and cooks split tips evenly, what percentage of the tips can Larry expect to receive?

- a. 9%
- b. 17%
- c. 30%
- d. 57%

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Question 2. A recipe calls for a half a cup of sugar, $2\frac{1}{2}$ cups of flour, and $\frac{2}{3}$ of a cup of baking soda. If you mix these three ingredients together, how many cups of mix would you have?

- a. $1\frac{2}{3}$ cups
- b. $2\frac{2}{3}$ cups
- c. $3\frac{1}{3}$ cups
- d. $3\frac{2}{3}$ cups

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Question 3. Sarah is making cupcakes for 40 people. The original recipe makes a dozen cupcakes. How many times does the recipe need to be duplicated to make exactly 40 cupcakes?

- a. 3
- b. $3\frac{1}{3}$
- c. 3.5
- d. 4

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(E) read and comprehend standardized recipes.

Question 4. Mr. Chan is the head chef for a popular bakery. Three dozen of his world famous yeast rolls call for 4 ounces of yeast to be dissolved into 2 cups of warm water. If Mr. Chan has been commissioned to make 1,000 rolls for a Thanksgiving feast, approximately how many pounds of yeast is he going to need?

- a. 7 pounds
- b. 38 pounds
- c. 73 pounds
- d. 111 pounds

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Question 5. Ms. Lucy is trying to offer a healthy alternative to her delicious but fat-filled cupcakes. She knows that half of the fat in her cupcakes comes from butter. If she replaces the butter with a margarine that has $\frac{1}{3}$ the fat of butter, how much will this reduce the total fat in one cupcake?

- a. $\frac{1}{6}$
- b. $\frac{1}{5}$
- c. $\frac{1}{3}$
- d. $\frac{1}{2}$

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(G) calculate and manage food costs.

Question 6. Jerry is working at a hamburger grill. The manager is able to buy their hamburger meat in bulk for a discounted rate. If he buys 100 pounds of meat at \$164, how much does the meat cost in a half-pound burger?

- a. \$0.48
- b. \$0.82
- c. \$1.64
- d. \$2.16

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Question 7. Martha is working at a hamburger restaurant whose scale is measuring incorrectly. The scale in the kitchen is off by 3 ounces. If the meat she uses to make half-pound burger patties cost \$1.16 per pound, approximately how much money is the restaurant losing by the added 3 extra ounces per burger?

- a. \$0.07
- b. \$0.14
- c. \$0.21
- d. \$0.28

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Question 8. Martha is working at a hamburger restaurant whose scale is measuring incorrectly. The scale in the kitchen is off by 3 ounces. If the meat she uses to make half-pound burger patties cost \$1.16 per pound, approximately how many pounds of hamburger meat were wasted when 76 hamburgers were sold?

- a. 7 pounds
- b. 14 pounds
- c. 32 pounds
- d. 76 pounds

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Question 9. Martha is working at a hamburger restaurant whose scale is measuring incorrectly. The scale in the kitchen is off by 3 ounces. If they make \$1.86 profit on every half-pound burger it sells, which equation could be used to find the amount of money lost m based on the amount of burgers sold b ?

- a. $m = 1.86b + 3$
- b. $m = 3b + 1.86$
- c. $m = 3b1.86$
- d. $m = \frac{3}{8}b1.86$

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Question 10. The Okay Café managers are thinking about adding a salmon dish to their menu. Which equation could be used to find the price p , not including tax, if the salmon's market price is m and they add \$2.99 for sides and want to mark up the salmon 63%?

- a. $p = 63m + 2.99$
- b. $p = (m + 2.99) \cdot 63$
- c. $p = .63m + 2.99$
- d. $p = 1.63m + 2.99$

Answer Key

- 1) A
- 2) D
- 3) B
- 4) A
- 5) A
- 6) B
- 7) C
- 8) B
- 9) D
- 10) D