

MeTEOR Performance Task

Algebra I

Mathematics
Systems with Food

Main Food

KIDS BREAKFAST.....\$0.36

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KIDS BREAKFAST

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Desserts

KIDS BREAKFAST.....\$0.36

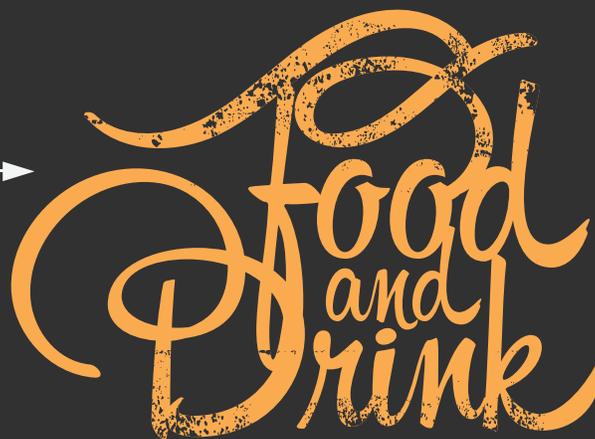
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KIDS BREAKFAST

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MENU RESTAURANT

Sweet Food

KIDS BREAKFAST.....\$0.36

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KIDS BREAKFAST.....\$0.36

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Hot Drinks and Juices

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KIDS BREAKFAST.....\$0.36

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Recommended Menu

Obtain a signed certificate. Obtaining a signed certificate involves creating a certificate signing request (CSR) and sending it to a CA in accordance with the CA's policy, and then conducting some checks on your company's website and sending you a validated certificate. See the documentation provided by the CA for more details.



CONNECTING THE DOTS

Lorem ipsum dolor sit amet

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Performance Task Item: Systems with Food Purchase

Task/Question 1:

- A. Write the definition of an equation:

- B. Write the definition of a System of Equations:

- C. Define a Solution to a System:

Solve each of the following equations:

D. $25x + 7 = 107$ _____ $12x + 84 = 0$ _____ $\frac{1}{2}x - 7 = 17$ _____

$y = 2x$
 $3x + y = 10$ _____

$5x + 2y = 24$
 $4x + 3y = 29$ _____

- E. The temperature in Spider Alley is 38°C and is dropping at a rate of 2 degrees per hour. The temperature in Snake Forge is 23°C and is going up at 3 degrees per hour. What is the temperature when both locations are the same?

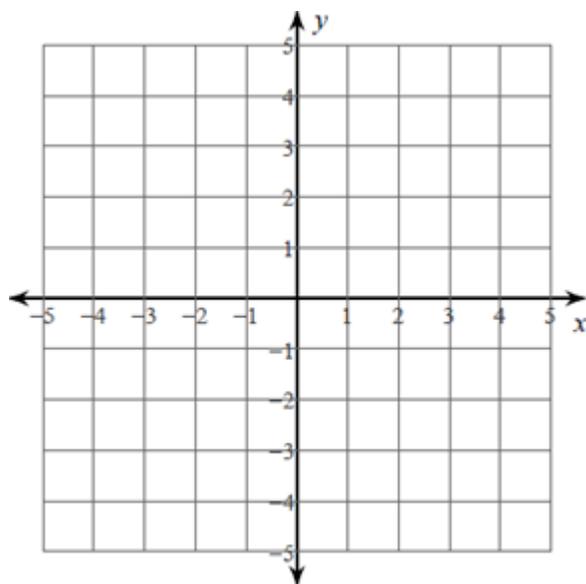
Task/Question 2:

- A.** Rewrite each equation in slope-intercept form:

$$-4x + y = 3$$

$$x + y = -2$$

- B.** Graph each equation from Part A on the graph below:



- C.** Write the solution to the system from the graph in Part B:

Task/Question 3:

You are helping to set prices for a new menu at a Taco Restaurant. The regular dinner has 3 chalupas and 2 tacos. The special dinner has 5 chalupas and 4 tacos. Let x be the number of cents charged for a chalupa and let y be the number of cents charged for a taco.

- A.** Write two expressions, one for the price of a regular dinner and the other for the price of a special dinner:

Regular dinner expression:

Special dinner expression:

- B.** If the cost of each chalupa was \$1.25 and the cost of each taco was \$.75 in Part A, how much would the dinners cost?

Regular dinner cost:

Special dinner cost:

- C.** Your manager says the cost of the dinners in Part B isn't enough money to cover the overhead costs and sets the regular dinner price to be \$9.56 and the special dinner price to be \$16.92. How much does each chalupa and taco cost based on these new prices?

Cost of a manager's chalupa:

Cost of manager's taco:

- D.** Explain how you knew how to find the cost of each item on the menu (from Part C):

Task/Question 4:

As the retired police officer visiting your local precinct, you volunteer to go out to get hamburgers and hotdogs for 23 people in the precinct. When you arrive at the hamburger stand, you suddenly forget how many hamburgers and hotdogs you are to buy. All you can remember is that each person only gets one hamburger or one hotdog and that they all gave you their money. You collected a total of \$32.10. Hamburgers cost \$1.50 each and hotdogs cost \$1.10 each. You decide you want a hamburger and toss in an extra \$1.50.

- A. Write the system of equations needed to solve this problem:

- B. Write the Solution to Part A:

- C. After solving Part A, how many hamburgers and hotdogs were purchased?

Number of hamburgers purchased:

Number of hotdogs purchased:

- D. How did you determine the system of equations needed to solve this problem? Justify and defend how your approach to solving this is the **most efficient**.



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