

Name: _____

Date: _____

At Concessions Unlimited, four granola bars and three drinks cost \$12.50. Two granola bars and five drinks cost \$15.00.

At Snacks To Go, three granola bars and three drinks cost \$10.50. Four granola bars and two drinks cost \$10.00

a) Write a system of equations for each concession stand that models the price of its items.

b) Solve each system of equations. What do the solutions represent?

c) You decide to open a new concession stand and sell granola bars and drinks. Determine a price for each item that differ from the others provided. Write a system of equations to model the prices at your snack bar.

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Task is worth a total of **6 points**.

Rubric Part A							
Score	Description						
2	Student response includes the following 2 elements ❖ Modeling Component = 2 points A system of equations is written for each concession stand Sample Student Response: <table style="width: 100%;"> <tr> <td style="width: 50%;">Concessions Unlimited</td><td style="width: 50%;">Snacks To Go</td></tr> <tr> <td>$4x + 3y = 12.5$</td><td>$3x + 3y = 10.5$</td></tr> <tr> <td>$2x + 5y = 15$</td><td>$4x + 2y = 10$</td></tr> </table>	Concessions Unlimited	Snacks To Go	$4x + 3y = 12.5$	$3x + 3y = 10.5$	$2x + 5y = 15$	$4x + 2y = 10$
Concessions Unlimited	Snacks To Go						
$4x + 3y = 12.5$	$3x + 3y = 10.5$						
$2x + 5y = 15$	$4x + 2y = 10$						
1	Student response includes 1 of 2 elements						
0	Student response is incorrect or irrelevant						

Rubric Part B									
Score	Description								
3	Student response includes the following 3 elements ❖ Calculation Component = 2 points The systems are solved correctly ❖ Reasoning Component = 1 point An explanation of what each solution represents is given Sample Student Response: <table style="width: 100%;"> <tr> <td style="width: 50%;">Concessions Unlimited</td><td style="width: 50%;">Snacks To Go</td></tr> <tr> <td>$4x + 3y = 12.5$</td><td>$3x + 3y = 10.5$</td></tr> <tr> <td>$2x + 5y = 15$</td><td>$4x + 2y = 10$</td></tr> <tr> <td>(1.25, 2.5)</td><td>(1.5, 2)</td></tr> </table> The solutions represent the costs per granola bar and per drink at each concession stand	Concessions Unlimited	Snacks To Go	$4x + 3y = 12.5$	$3x + 3y = 10.5$	$2x + 5y = 15$	$4x + 2y = 10$	(1.25, 2.5)	(1.5, 2)
Concessions Unlimited	Snacks To Go								
$4x + 3y = 12.5$	$3x + 3y = 10.5$								
$2x + 5y = 15$	$4x + 2y = 10$								
(1.25, 2.5)	(1.5, 2)								

2	Students response includes 2 of 3 elements
1	Students response includes 1 of 3 elements
0	Student response is incorrect or irrelevant

Rubric Part C	
Score	Description
1	Student response includes the following element ❖ Modeling component = 1 point Prices are assigned to each item and a system of equations modeling these prices is provided Sample Student Response: (Answers vary) Granola Bars cost \$1 and drinks cost \$1.50 $x + y = 2.5$ $x + 2y = 4$
0	Student response is incorrect or irrelevant

Points	Genesis Conversion
0	55
1	59
2	69
3	79
4	89
5-6	100