

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.



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

Rubric Part A							
Score	Description						
2	<p>Student response includes the following 2 elements</p> <ul style="list-style-type: none"><li>❖ Modeling Component = 2 points</li></ul> <p>A system of equations is written for each concession stand</p> <p>Sample Student Response:</p> <table><tbody><tr><td>Concessions Unlimited</td><td>Snacks To Go</td></tr><tr><td><math>4x + 3y = 12.5</math></td><td><math>3x + 3y = 10.5</math></td></tr><tr><td><math>2x + 5y = 15</math></td><td><math>4x + 2y = 10</math></td></tr></tbody></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	<p>Student response includes the following 3 elements</p> <ul style="list-style-type: none"><li>❖ Calculation Component = 2 points</li></ul> <p>The systems are solved correctly</p> <ul style="list-style-type: none"><li>❖ Reasoning Component = 1 point</li></ul> <p>An explanation of what each solution represents is given</p> <p>Sample Student Response:</p> <table><tbody><tr><td>Concessions Unlimited</td><td>Snacks To Go</td></tr><tr><td><math>4x + 3y = 12.5</math></td><td><math>3x + 3y = 10.5</math></td></tr><tr><td><math>2x + 5y = 15</math></td><td><math>4x + 2y = 10</math></td></tr><tr><td>(1.25, 2.5)</td><td>(1.5, 2)</td></tr></tbody></table> <p>The solutions represent the costs per granola bar and per drink at each concession stand</p>	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	<p>Student response includes the following element</p> <ul style="list-style-type: none"> <li>❖ Modeling component = 1 point</li> </ul> <p>Prices are assigned to each item and a system of equations modeling these prices is provided</p> <p>Sample Student Response: (Answers vary)</p> <p>Granola Bars cost \$1 and drinks cost \$1.50</p> $x + y = 2.5$ $x + 2y = 4$
0	Student response is incorrect or irrelevant

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