

Amplifying an Instructional Task – Algebra I Example

Original Task

The student is expected to write linear inequalities in two variables given a table of values, a graph, and a verbal description. A(2)(H)

The Student Council is holding a fundraiser for an upcoming event. The committee has agreed to a bid from Yummy Cakes Bakery and a donation for all the sodas from a local business. They plan to spend no more than \$1,000 on refreshment items. Write an inequality to describe the situation.

Yummy Cakes Bakery

Bid for Student Council Fundraiser

Cake squares = \$3 each

Brownies = \$2 each

Order must be placed 2 weeks before event date.

Amplifying an Instructional Task – Algebra I Example

Amplified Task

The Student Council is holding a fundraiser for an upcoming event. The committee has agreed to a bid from Yummy Cakes Bakery and a donation for all the sodas from a local business. They plan to spend no more than \$1,000 on refreshment items. Write an inequality to describe the situation.

Yummy Cakes Bakery

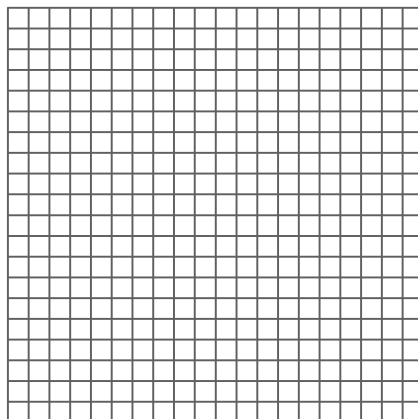
Bid for Student Council Fundraiser

Cake squares = \$3 each

Brownies = \$2 each

Order must be placed 2 weeks before event date.

1. Create a graph to represent the possible combinations of cake squares and brownies that the student council could purchase from Yummy Cakes Bakery.

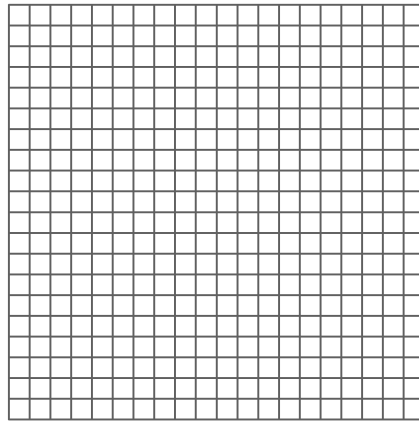


2. Use the graph to determine which of the following combinations are reasonable orders from Yummy Cakes Bakery based on the given information.

Cake Squares	Brownies	Total Cost
100	300	
300	100	
200	200	
150	200	
100	400	
150	150	

Amplifying an Instructional Task – Algebra I Example

- Describe how the graph would change if the student council found out that they must pay \$100 for drinks because the donation for soda was reduced. Predict how this change would affect your graph.
- Create a graph to represent this situation.



- Which of the options from question 2 would still work for this new situation?

Amplifying an Instructional Task – Algebra I Example

Task B (Scaffolded Task):

The Student Council is holding a fundraiser for an upcoming event. The committee has agreed to a bid from Yummy Cakes Bakery and a donation for all the sodas from a local business. They plan to spend no more than \$1,000 on refreshment items. Write an inequality to describe the situation.

Yummy Cakes Bakery

Bid for Student Council Fundraiser

Cake squares = \$3 each

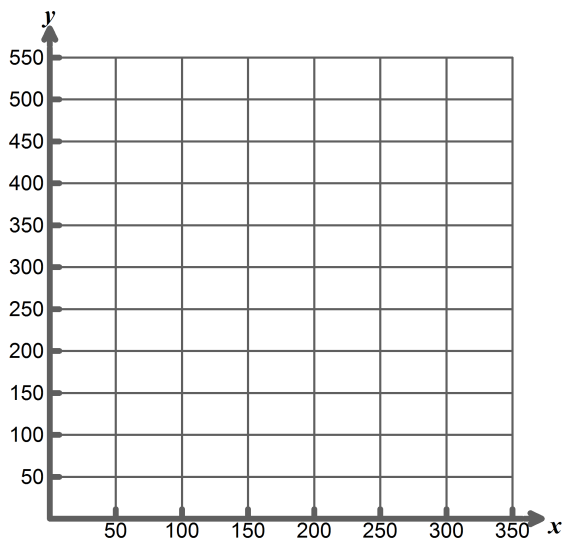
Brownies = \$2 each

Order must be placed 2 weeks before event date.

1. Let x represent the number of cake squares ordered, and let y represent the number of brownies ordered. Use the following to write an inequality for the situation:

$$(\text{cost of cake})(\# \text{ of cakes}) + (\text{cost of brownies})(\# \text{ of brownies}) \leq (\text{amount budgeted})$$

2. Create a graph to represent the possible combinations of cake squares and brownies that the student council could purchase from Yummy Cakes Bakery.



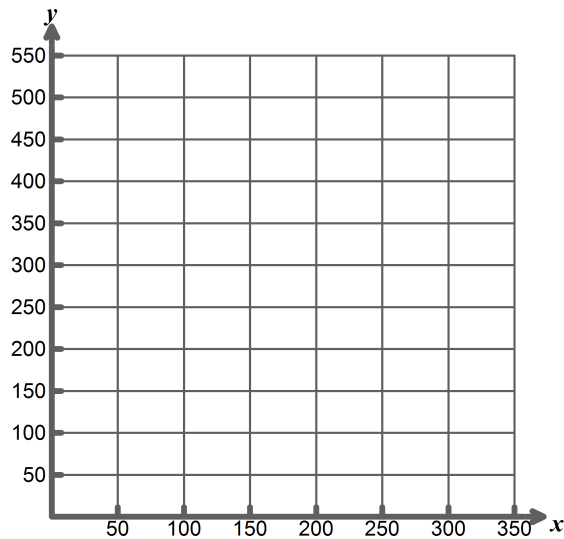
Amplifying an Instructional Task – Algebra I Example

3. Use the graph to determine which of the following combinations are reasonable orders from Yummy Cakes Bakery based on the given information.

Cake Squares	Brownies	Total Cost
100	300	
300	100	
200	200	
150	200	
100	400	
150	150	

4. Describe how the graph would change if the student council found out that they must pay \$100 for drinks because the donation for soda was reduced. Predict how this change would affect your graph.

5. Create a graph to represent this situation.



Amplifying an Instructional Task – Algebra I Example

6. Which of the options from question 2 would still work for this new situation?

Cake Squares	Brownies	Total Cost
100	300	
300	100	
200	200	
150	200	
100	400	
150	150	

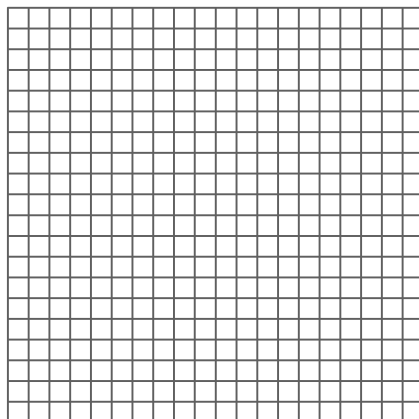
Amplifying an Instructional Task – Algebra I Example

Task C (Scaffolded Task):

The Student Council is holding a fundraiser for an upcoming event. The committee has agreed to a bid from Yummy Cakes Bakery and a donation for all the sodas from a local business. They plan to spend no more than \$1,000 on refreshment items. Write an inequality to describe the situation.

<p style="text-align: center;">Yummy Cakes Bakery</p> <p style="text-align: center;">Bid for Student Council Fundraiser</p> <p style="text-align: center;">Cake squares = \$3 each</p> <p style="text-align: center;">Brownies = \$2 each</p> <p style="text-align: center;">Order must be placed 2 weeks before event date.</p>

1. Create a graph to represent the possible combinations of cake squares and brownies that the student council could purchase from Yummy Cakes Bakery.

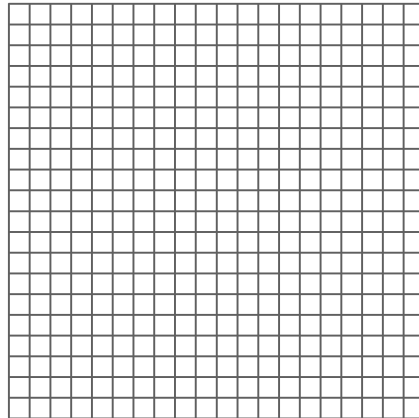


2. Use the graph to determine which of the following combinations are reasonable orders from Yummy Cakes Bakery based on the given information.

Cake Squares	Brownies	Total Cost
100	300	
300	100	
200	200	
150	200	
100	400	
150	150	

Amplifying an Instructional Task – Algebra I Example

3. Discuss how the graph would change if the student council found out that they must pay \$100 for drinks because the donation for soda was reduced. Predict how this change would affect your graph.
4. Create a graph to represent this situation.



5. Which of the options from question 2 would still work for this new situation?

Write a letter addressed to the school principal that describes your plan for refreshments and how the money will be spent.

Amplifying an Instructional Task – Algebra I Example

Task D (Enriched Task):

The Student Council is holding a fundraiser for an upcoming event. The committee has agreed to a bid from Yummy Cakes Bakery and a donation for all the sodas from a local business. They plan to spend no more than \$1,000 on refreshment items. Write an inequality to describe the situation.

Yummy Cakes Bakery

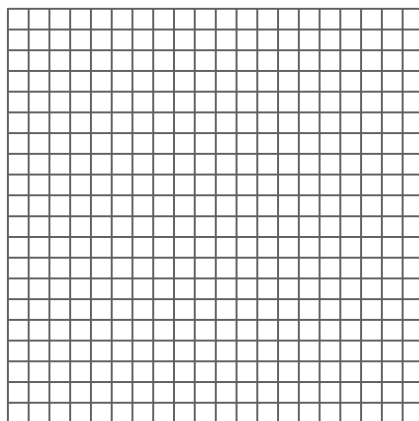
Bid for Student Council Fundraiser

Cake squares = \$3 each

Brownies = \$2 each

Order must be placed 2 weeks before event date.

1. Create a graph to represent the possible combinations of cake squares and brownies that the student council could purchase from Yummy Cakes Bakery.



2. Complete the table below with three choices that are reasonable and three that are not reasonable based on the given information.

Cake Squares	Brownies	Reasonable	Justification
		Y N	
		Y N	
		Y N	
		Y N	
		Y N	
		Y N	

Amplifying an Instructional Task – Algebra I Example

3. Describe how the graph would change if the student council found out that they must pay \$100 for drinks because the donation for soda was reduced. Predict how this change would affect your graph.
4. Describe how the graph would change if the donation for drinks remains the same but the cost for brownies is increased to \$3 each.
5. Which situation (question 3 or question 4) is a better change for the Student Council? Justify your response.