

Name: \_\_\_\_\_ Date: \_\_\_\_\_ P: \_\_\_\_\_

## INEQUALITIES TO SAVE THE UNITED NATIONS

As a representative of your country, you have been sent the following letter and given an important task:

*Dear Representative to the United Nations:*

*A critical matter has come to the attention of the United Nations. In the past, when a catastrophe struck a part of the world, the U. N. gathered supplies to give to people in need. Unfortunately, because the U. N. had to collect supplies from each country at the time of the catastrophe, it was always quite a few days before the supplies could be sent to the areas that needed them the most.*

*A recommendation has come before the U. N. to create a supply of food and medicine packages for future emergencies. Each food package will be able to feed several hundred people, while each medicine package will supply one first-aid station. I am asking each country to donate the same number of packages so each country shares the burden equally.*

*I am asking each country to determine how many food and medicine packages they are able to give. You will present your findings at today's United Nations meeting. Please be certain to use the information that your country's Budget Committee has prepared to help you decide how many packages you can afford.*

*Best of luck, and may our efforts make our world a better place!*

*Sincerely,*

*The Secretary General of the United Nations*

After consulting with your country's Budget Committee, your teacher will supply you with some information that will help decide how many food and medicine packets your country can afford.

**Your Task:** To communicate your country's budget constraints, write an inequality expressing how many food and medicine packages your country is able to give. Let  $x$  equal the number of food packages and  $y$  equal the number of medicine packages.

Country \_\_\_\_\_ (    ):

Once you have figured out the inequality for your country, graph the solution region representing the number of medicine and food packets that can be donated by your country. Be prepared to share your graph with the other countries of the United Nations.

**\*\*When shading, just draw arrows in the direction that needs to be shaded**

Country \_\_\_\_\_ (    ):

Country \_\_\_\_\_ (    ):

Country \_\_\_\_\_ (    ):

Country \_\_\_\_\_ (    ):

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9-112. As a member of the United Nations, you must consider each of the following proposals. In each case, assume that the United Nations would like to receive as many emergency supplies as possible, while still having each nation give equally.

- a. One proposal is that each country gives 185 medicine packages. How many food packages should the United Nations require from each country in this case? Explain how you made your decision.
  
  
  
  
  
  
  
  
  
  
- b. Another proposal is to get the largest number of medicine packages possible. What is the largest number of medicine packages that each country can offer? How did you find your answer?

9-113. A last-minute proposal suggests balancing the number of food and medicine supplies. For instance, if a country gives 150 food packages, then they would also give 150 medicine packages. How many food and medicine packages should the United Nations require from each country in this case? Explain how you determined your solution.