

Name:

ANSWERS!

Class:



Communication



Successful Partnership



Encouragement



Solving Problem Together



Collaboration

Question 01

A basketball team is selling bags of candies for \$4 each and bottles of water for \$3 each. To make a profit, they must collect a total of more than \$96.

Part A Write an inequality to model this situation with bags of candies as  $x$ , and bottles of water as  $y$ .

$$4x + 3y > 96$$

Part B Graph the inequality below

find the zeroes!!

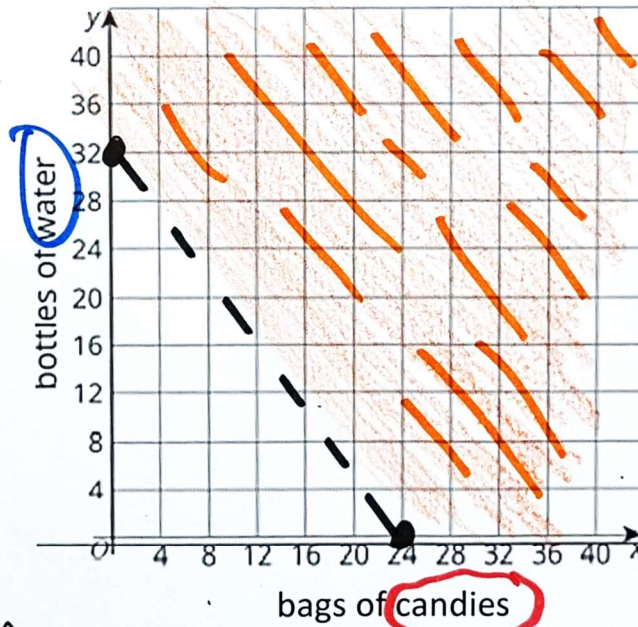
if they sell 0 bags of candies, then they would need to sell more than 32 waters.

$$4x + 3y > 96$$

$$4(0) + 3y > 96$$

$$3y > 96$$

$$y > 32$$



if they sell 0 waters, then they would need to sell more than 24 bags of candies.

$$4x + 3y > 96$$

$$4x + 3(0) > 96$$

$$4x > 96$$

$$x > 24$$

Question 02

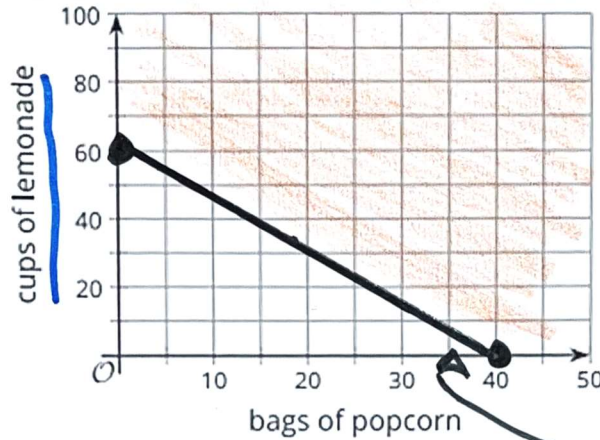
A soccer team is selling bags of popcorn for \$3 each and cups of lemonade for \$2 each. To make a profit, they must collect a total of at least \$120.

Part A Write an inequality to model this situation with bags of popcorn as  $x$ , and lemonade as  $y$ .

$$3x + 2y \geq 120$$

Part B Graph the inequality below

Just popcorn?  
sell 40.  
Just lemonade?  
sell 60.



↑  
Solid line!

Question 03

Tina is filling a small jar with quarters and dimes. The jar has less than \$5.00.

Part A Write an inequality to model this situation with dimes as  $x$ , and quarters as  $y$ .

$$0.1x + 0.25y < 5$$

Part B Graph the inequality below

Just dimes?  
less than  
50.  
Just quarters?  
less than  
20.

