**Example 1:**

Luigi needs to buy cheese for his restaurant. He can buy cheddar or Swiss cheese. He must buy at least 5 kg of cheese total. His fridge can only fit 8 kg of cheese. Luigi pays $2 per kg of cheddar and $3 per kg of Swiss. How much of each cheese should he buy to minimize his cheese costs?

**Step 1** – Define your variables

**Step 2** – Write inequalities from the paragraph.

 There may be hidden inequalities.

**Step 3** – Put the inequalities on your graph.

**Step 4** – Write an equation for cheese cost.

**Step 5** – Test ALL of the corners to find the combination with the lowest cost.

**Step 6** – Answer in a sentence.

**Example 2:**

Betty is making some healthy punch for her party. She has orange and grape juice to mix in the punch. Her jumbo punch bowl holds 9 litres of juice. Betty has 6 litres of orange juice and 7 litres of grape juice in the fridge. A litre of orange juice has 2 g of vitamin C. A litre of grape juice on has 1 g of vitamin C. How can Betty get the most vitamin C into her punch.

Show all 6 steps!