

**Story Problems: Elimination****Review: Solve by Substitution:**

1) Karen is twice as old as Lori. Three years from now, the sum of their ages will be 42. How old is Karen now?

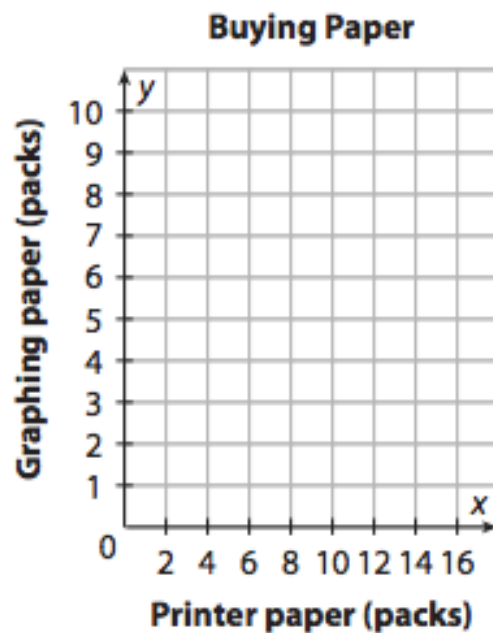
**Review: Solve by Graphing:**

2) A student has to buy graph paper and printer paper. The printer paper costs \$2 a pack, while the graphing paper costs \$3 a pack. She wants to buy at least 6 packs of paper but wants to spend at most \$27.

a. Write a system of inequalities for the situation.

b. Graph the solution to the right.

c. How many packs of printer paper and graph paper can the student buy to meet all criteria?

**Elimination Story Problems**

3) Arnold and Gerald have 98 footballs all together. The difference in Arnold's and Gerald's number of footballs is 32. Arnold has more footballs. Write a system of equations to represent this situation, then solve it to figure out how many footballs each of them had.

4) Joe bought some notebooks and some folders for school. He bought 11 items all together. Each notebook cost \$4.00 and each folder cost \$1.00, and Joe spent \$26 total. Write a system of equations to represent this situation, then solve it to figure out how many of each item he bought.

5) The cost of 8 muffins and 2 quarts of milk is \$18. The cost of 3 muffins and 1 quart of milk is \$7.50. Write a system of equations to represent this situation, then solve it to figure out how much each item costs.

### **Review Problem**

6) The population of a town can be modeled by the function  $P(t) = 20,696(0.9974)^t$ , where  $t$  is the number of years that have passed since the year 2000.

Which statement is true about the population of the town for each year since 2000?

It has been decreasing by 0.26% each year.

It has been decreasing by 0.0026% each year.

It has been increasing by 0.9974% each year.

It has been increasing by 99.74% each year.

7) The change in the population of fruit flies can be modeled by the equation  $P(t) = 3(1.50)^t$ , where  $t$  is time in days. Which statement describes the change in the population of fruit flies?

A 1.50% decrease daily

B 1.5% increase daily

C 50% increase daily

D 150% decrease daily