

Word Problems: Systems of Equations

Name: _____

Mr. Karolynca

(Show work for credit.)

Set up a system of equations for each problem. Then, solve each system by whatever mathematical means you like.

- 1) John bought tickets and chairs for his softball team. He bought 10 total items and spent \$2000. Each ticket cost \$100 and each chair cost \$50. Let x represent the number of tickets and y represent the number of chairs. How many tickets and chairs did he buy?
- 2) Mrs. Pige and Bill bought tickets for her table tennis. She paid two types of tickets: large-denomination chips and small-denomination tickets. She changed \$1 for the denomination chips and \$0.50 for the small denomination and collected \$27.50 total. How many of each type did she buy?
- 3) Peter's Store sold 200 total items from the website with 400 items (\$2 each) and 160 items (\$1 each) from the store. It took \$200 to ship. How many items and how many dollars did it sell?
- 4) Penelope's Printing Press primarily sold 8 cent pencils and 10 cent pens to the public. It sold 1000 writing utensils and took in \$100.00 in sales. How many pens and how many pencils did Penelope's Printing Press sell?
- 5) Greg "Overlord" Bennett liked to collect cards as a hobby. He had 80 CDs, which were rock and pop CDs. He bought his CDs at a rock store \$4 for rock and \$2 for pop CDs. If his collection was worth \$200, how many of each type of CD did he own?
- 6) Bill's store has two interchangeable categories. The store accounted for mathematical items and science the same every week, which is a total of 100 items. She charges \$40 for mathematical and \$20 for mathematical science. Every week, she takes in \$2800 in revenue. How many amounts of each type does she average?
- 7) These manufacturers Mexican and American flags. Due to the rate of sales, she charges \$20 for Mexican flags and \$15 for American flags. She sold every night flags and accounted \$2000. How many flags of each type did she sell?
- 8) Kathy's Store had a special on table-top sets. It sold 25 for \$1 and 100 for \$2. It sold 40 bottles as a single top and received \$100. How many bottles and of which type were sold?