MAT1275CO College Algebra and Trigonometry - Section D103
Exam 3 - Word Problems (Solving Linear Equations) Practice - Key

 Exam 3 will have one word problem. These problems and the problems from lecture should help you practice.

1. Olga built two new planters in her backyard. The first planter has a square shape. The second planter has the shape of an equilateral triangle. The side lengths of the square garden are 3 feet longer than the side lengths of the triangular planter. What are the side lengths of both planters if Olga used 61 feet of fencing in total to build both planters?
The square garden has a side length of 10 feet. The triangular planter has a side length of 7 feet.

2. Lee-Ann and Liken are collecting seashells. Together they collected 50 seashells. Lee-Ann collected 14 more seashells than Liken. How many shells did each of them collect?
Lee-Ann collected 32 seashells. Liken collected 18 seashells.

3. Delano is selling chocolate chip and oatmeal cookies. Chocolate cookies are $1.00 each. Oatmeal cookies are $2.00 each. In the first sale of the day, Delano sold 15 cookies and made a total of $25.00. How many of each type of cookie was sold?
Delano sold 5 chocolate chip cookies and 10 oatmeal cookies.

4. Bryant is investing some of his money to start a savings account. His mother is willing to contribute double his initial investment to help him start the account. After that, Bryant will add $20 to the account every week. How much of his own money money does Bryant need to invest initially if he wants to have $350 in his account after one month?
Bryant needs to invest $90 into the account initially. (His mother will initially invest double that, $180. His account will start with $270. After 4 weeks of adding 20 per week, he will have $270 + 4($20) = $350 in the account.)

5. Kayston and Terard collect baseball cards. Kayston is starting with 26 cards. He will sell 5 cards and buy 3 cards every day for a week. Terard is starting with 10 cards. He will sell 3 cards and buy 5 cards every day for a week. On which day, (first, second, third, etc.) will they have the same number of cards ?
Kayston and Terard will have the same numer of cards on the fourth day of the week.