Set up the following problems. Do not solve.

1. A kitchen appliance manufacturer makes can openers and dough cutters, using two machines: a press and a riveter. Each can opener requites 0.2 minutes in the press and 0.4 minutes in the riveter. A dough cutter requires 0.5 minutes in the press and 0.3 minutes in the riveter. The press can be operated only 3 hours per day and the riveter only 2.5 hours per day. If these two machines are fully utilized, how many can openers and dough cutters can be produced each day?

   x = the number of can openers
   y = the number of dough cutters

   $.2x + .5y = 180$
   $.4x + .3y = 150$

2. A store is filling an order for 60 pounds of mixture of walnuts, pecans, and peanuts, which will sell for $0.90 per pound. The walnuts normally sell for $1.00 per pound, the pecans for $1.10 per pound, and the peanuts for $0.60 per pound. The order stipulates that 60% of the nuts are to be walnuts or pecans. If the income from selling the mixture is to be the same as that for selling the nuts separately, how many pounds of each type of nut should be used in filling the order?

   x = number of pounds of walnuts.
   y = number of pounds of pecans.
   z = number of pounds of peanuts.

   $x + 1.1y + .6z = 5.4$
   $x + y + z = 60$
   $x + y = 36$

3. The city of Aurora gets a matching grant of $1 million (making a total of $2 million) to spend in these categories: streets, sewers, and parks. The city council decides that the amount spent on parks should equal the total amount spent on streets and sewers and that, furthermore, twice as much should be spent on parks as on sewers. How much money is to allotted to each of these categories?

   x = the amount spent on streets in millions of dollars.
   y = the amount spent on sewers in millions of dollars.
   z = the amount spent on parks in millions of dollars.

   $x + y + z = 2$
   $2y - z = 0$
   $x + y - z = 0$

4. A brokerage firm packaged blocks of blue-chip stocks, bonds and high-risk stocks into three portfolios, which it offers to its customers. Portfolio I contains one block of blue chip stocks, four blocks of bonds, and three blocks of high-risk stocks. Portfolio II contains two blocks of blue-chip stocks, one block of bonds, and two blocks of high-risk stocks. Portfolio III contains four blocks of blue-chip stocks, two blocks of bonds, and one block of high-risk stocks. A customer wants eight blocks of blue-chip stocks, 11 blocks of bonds, and nine blocks of high-risk stocks. How many of each portfolio should the customer purchase?

   x = the number of Portfolio I bought.
   y = the number of Portfolio II bought.
   z = the number of Portfolio III bought.

   $x + 2y + 4z = 8$
   $4x + y + 2z = 11$
   $3x + 2y + z = 9$