Don’t forget that your variables should be labeled so that a person who doesn’t know the answer can follow your work.

1. A theatre charges $5.00 for adults and $2.50 for children. The theatre sold 400 tickets and brought in $1750 in revenue. How many adults and children went to the theatre? (3 points)

2. A company Fertiloam, produces three mixtures of fertilizer, each come in 100 pound bags. The first, Lawncare, contains 15 lb of nitrogen, 6 lb of phosphate and 5 lb of potassium. The second, Fieldcare, contains 20 lb of nitrogen, 4 lb each of potassium and phosphate. The last, Golfcare, contains 16 lb of nitrogen, 8 lb of phosphate, and 7 lb of potassium. If there is 11032 lb of nitrogen, 4076 lb of phosphate and 3649 lb of potassium, and all the supplies get used up, how many bags of each type of fertilizer will be produced? (5 points)

3. Since each 100 lb bag is not full of the three compounds, the company has to fill the rest of the bag with dirt. How much dirt do they need for the previous problem? (2 points)