Assignment 1

Question 1:

A factory produces three types of seats, which are box seats, grandstand seats, and bleacher seats. The total number of seats produced by this factory is 7000 seats. This factory sells box seats at $6, grandstand seats at $4, and bleacher seats at $2. When all seats are sold, the revenue is $26,400. If the number of box seats is one-third the number of bleacher seats, how many seats of each type are there? **(solve using two different methods).**

Question 2:

Solve the following using both substitution and elimination

a)
$$\begin{aligned} 2x + y &= 2 \\ 4x - y &= 1 \end{aligned}$$

b)
$$\begin{aligned} 3x - 4y &= 15 \\ -12x + 16y &= -60 \end{aligned}$$