1. Plot the points (1, 2), (2, 4), and (3, 8) in the cartesian plane.
   Label the coordinate axes.

   (a) Determine the least squares linear regression equation \( y = \hat{b}_0 + \hat{b}_1 x \) for the given set of three points.

   Formulas: 
   \[
   \hat{b}_1 = \frac{\text{Cov}\{x_1, x_2, x_3\}, \{y_1, y_2, y_3\}}{\text{Var}\{x_1, x_2, x_3\}} \quad \text{and} \quad \bar{y} = \hat{b}_0 + \hat{b}_1 \bar{x}
   \]

   (b) Determine the linear correlation coefficient \( r \).

   Formula: 
   \[
   r = \frac{\text{Cov}\{x_1, x_2, x_3\}, \{y_1, y_2, y_3\}}{\sqrt{\text{Var}\{x_1, x_2, x_3\}\text{Var}\{y_1, y_2, y_3\}}}
   \]

2. On page 144 of the textbook, solve exercise #4-13.