The table below shows the height and weight of the 6 individuals.

Height (m)	Weight (kg)
1.86	85
1.55	45
1.62	55
1.95	92
2.00	100
1.77	74

1. Please perform Min-Max normalization to Height and Weight with minimum value of 2 and maximum value of 5.

$$x_i' = \frac{(x_i - min)}{max - min}(max_{new} - min_{new}) + min_{new}$$

2. Create a linear regression using normalized height to predict normalized weight.

$$\theta_1 = \frac{\sum(x^{(i)} - \bar{x})(y^{(i)} - \bar{y})}{\sum(x^{(i)} - \bar{x})^2}$$

$$\theta_0 = \bar{y} - \theta_1 * \bar{x}$$

3. Calculate the residuals of 6 individuals.

$$e_i = |y^{(i)} - h_\theta(x^{(i)})|$$