Quiz 3
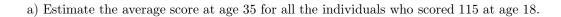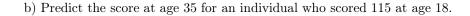
1. For the data set below, (a) find the equation for the regression line, (b) draw the scatter plot and the two line.

x	y
1	1
3	7
4	8
4	9
5	10
7	13

2. In a study of the stability of IQ scores, a large group of individuals is tested once at age 18 and again at age 35. The following results are obtained.

$$
\begin{aligned}
&\text{age 18:} \quad \text{average score} \approx 100, \quad \text{sd} \approx 15 \\
&\text{age 35:} \quad \text{average score} \approx 100, \quad \text{sd} \approx 15, \quad r \approx 0.8
\end{aligned}
$$

a) Estimate the average score at age 35 for all the individuals who scored 115 at age 18.

b) Predict the score at age 35 for an individual who scored 115 at age 18.

c) Predict the score at age 35 for an individual who scored 130 at age 18.