1. a) It is 15+0.9*6=20.4 b) It is 15+0.9*5-17=2.5 c) The response increases by 0.9*3=2.7 units d) No, because due to the random error component of the regression model the true observation can never be predicted with 100% certainty e) The least squares estimate is $s^2 = \frac{SSE}{n-2} = \frac{7}{16}$; the maximum likelihood estimate is $\frac{SSE}{n} = \frac{7}{18}$ f) The training time in minutes $x^* = 60x$. If, for example, x=1 hr(60 min), the prediction will be 15+0.9*1=15.9 or 15+(0.9/60)*60=15.9

2. The first equation gives the description of the mean response (expected value of the response) as a linear function of X. The second one describes the linear regression model for the data whereby each observation is represented as a linear function of X plus a random error