Practice Problem - C10/C12 - negative correlation

For each car advertised in the latest edition of *The Used Car Advertiser* the age (in years) and the price (in thousands of dollars) were recorded. The following summary statistics were calculated from the data:

average age = 6.3 years	SD = 1.8 years	
average price = 9.4	SD = 2.6	r = -.62

It was noted that both age and price were normally distributed.

1. Write the **equation of the regression line** used to predict price from age.

2. **Predict** the price of a 7 year old car. Predict the price of a 5 year old car.

3. Estimate the **percentile ranking** for the price of a car that is at the

a) 90^{th} percentile for age

b) 15^{th} percentile for age

Answers to Practice Problem – C10/C12 – negative correlation

1. **y = -.896(x) + 15.04**

2. **$8768, $10,560**

3. **a) close to 21.5 percentile (note: predict between 50th and 10th)**

   b) close to 73.9 percentile (note: predict between 50th and 85th)