

Answer on Question #68723 – Math – Statistics and Probability

Question

Fit a normal curve to the following data

x: 2 4 6 8 10

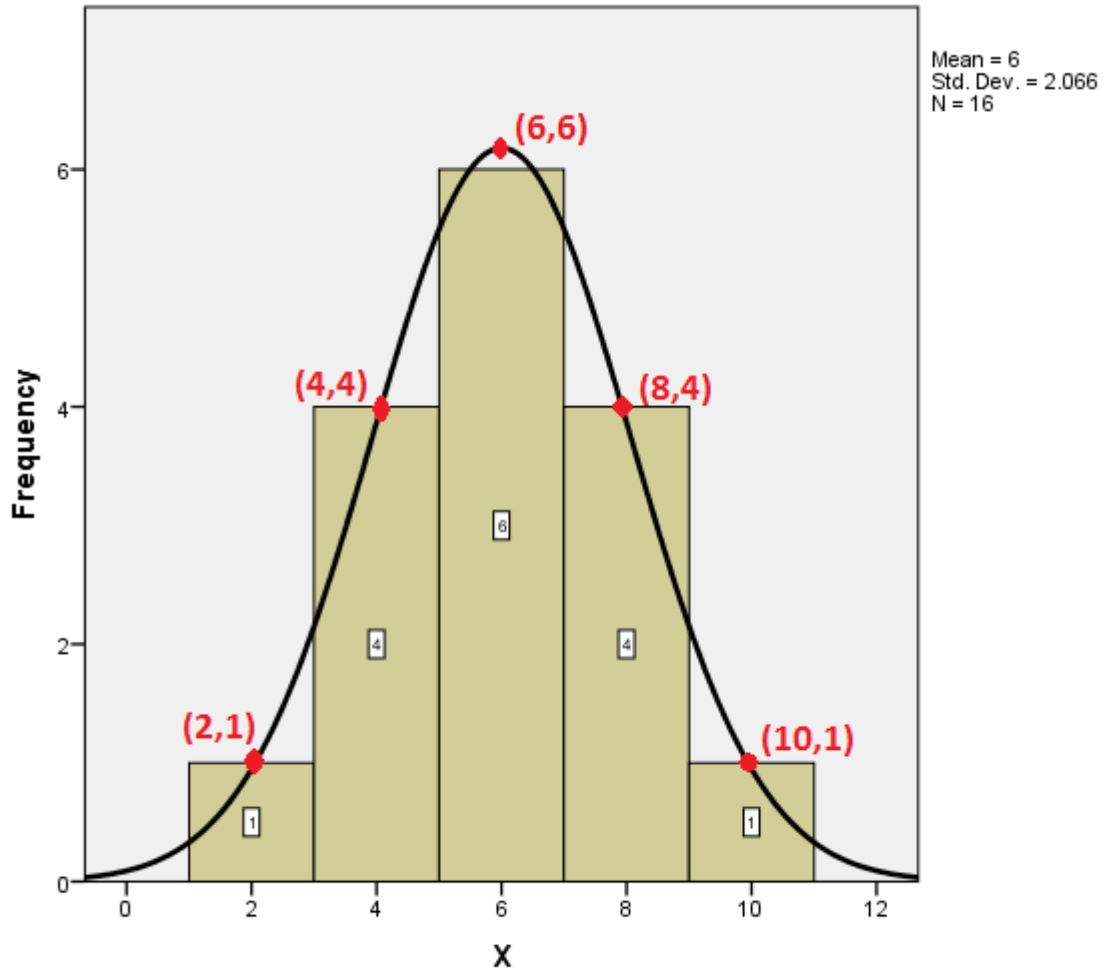
f: 1 4 6 4 1

Solution

$$\mu = \frac{\sum x_i f_i}{\sum f_i} = \frac{96}{16} = 6.$$

$$\sigma = \sqrt{\frac{\sum f_i (x_i - \mu)^2}{\sum f_i - 1}} = \sqrt{\frac{64}{15}} \approx 2.07.$$

Probability density function: $f = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}} = 0.1927 e^{-0.1172(x-6)^2}.$



Answer provided by <https://www.AssignmentExpert.com>