Math 148 - Elementary Bio Stats

Solutions for Spring 2016 Lecture Quiz 01

Spring 2016 Lecture Quiz 01

Write your NAME and SECTION on your sheet!

This quiz is worth a total of 7 points.

1.   What is the five point summary for a scatter diagram?

Solution to problem 1: $\bar{x}$, SD_x, $\bar{y}$, SD_y, r . ∎

2.   Compare two scatter diagrams. The first one has $r = -.95$ the second one has $r = -.4$. Explain the difference in writing but also draw pictures of the diagrams.

Solution to problem 2: Both are sloped downward but the one with $r = -.95$ is clustered very tightly about a straight line whereas the one with $r = -.4$ is rather shapeless with a pattern that is much less clustered about a straight line. See figure 7 in ch.8 of the FPP text (p.129). ∎

3.   Compare two scatter diagrams. The first one has $r = -0.7$ the second one has $r = +0.7$. Explain the difference in writing but also draw pictures of the diagrams.

Solution to problem 3: Both have about the same amount of clustering about a straight line but the one with $r = -0.7$ is sloped downward whereas the one with $r = +0.7$ is sloped upward. Compare figure 6 (p.127). and figure 7 (p.129) in ch.8 of the FPP text. ∎