Classroom Voting Questions: Statistics

Least-Squares Regression

1. A store manager conducted an experiment in which he systematically varied the width of a display for toothpaste from 3 ft. to 6 ft. and recorded the corresponding number of tubes of toothpaste sold per day. The data was used to fit a regression line, which was

   $$\text{tubes sold per day} = 20 + 10(\text{display width})$$

   What is the predicted number of tubes sold per day for a display width of 12 feet?

   (a) 120

   (b) 140

   (c) It would be unwise to use the regression line to make a prediction for a display width of 12 ft.

   Answer: (c).

   by Roxy Peck for the textbooks: Roxy Peck and Jay Devore, Statistics: The Exploration and Analysis of Data, 6th Edition, Brooks/Cole Cengage Learning 2008 and Roxy Peck, Chris Olsen and Jay Devore, Introduction to Statistics and Data Analysis, 3rd Edition, Brooks/Cole Cengage Learning 2008.

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   CC KC MA207 F15: 0/100/**0** time 1:15
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