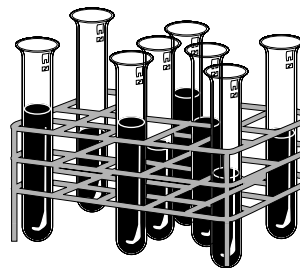


School-to-Career Activity

(Use with Lesson 5-7)

Medical Laboratory Technician

You are a medical laboratory technician at Allswell Labs. The lab is considering upgrading its cholesterol testing equipment. Your supervisor has obtained two different models of cholesterol testing equipment. You have been asked to evaluate their performances. Model A analyzed a blood sample from one patient 20 different times. Model B also analyzed a blood sample from the same patient 20 different times. The results are given below.



Model A	Model B
174.8	179.3
173.9	175.4
175.9	174.9
175.1	176.2
175.3	189.4
177.1	173.7
176.8	179.8
178.4	177.1
176.7	175.9
174.8	174.4
177.0	175.8
179.2	176.3
175.1	170.2
176.2	172.7
177.4	177.6
176.2	178.5
174.7	176.3
175.8	168.9
173.1	176.6
176.6	183.7

Analyze the variation of the results given by each model. Based solely on this information, which model of cholesterol testing equipment would you recommend to your supervisor? Explain your reasoning. What other types of information would be useful in making this decision?

Model A: range, 6.1; Q1, 174.95; Q2, 176.05; Q3, 176.9; IQR, 1.95; Model B: range, 20.5; Q1, 174.65; Q2, 176.25; Q3, 178.05; IQR, 3.4; Comparing the ranges and interquartile ranges for the two sets of data, it appears that the measurements made by Model A have less variation. Model A would probably be a better choice because its measurements cluster more closely around the true cholesterol level. Other useful information: cost of the units, results of additional tests, recommendations of other labs, and so on