

Name: _____

Date: _____

Heights of Students at a Large High School

Background:

Our class will help judge a contest held at a particular high school to see who can make the best predictions.

Height data for 40 randomly selected students were provided to three teams.

Using this data, each team was asked to predict the heights of a random sample of 10 students. Here is the catch: **teams were allowed to give only ONE number that had to be used to predict all 10 heights.**

As the judges of this contest, you will determine the winner.

Instructions:

1. Your job is to determine the winning team. You must come up with two things:
 - a. You must support your choice of a winner by using a **rule** for calculating a total score for each team.
 - b. The rule must be applied to each team's prediction, and you must be able to explain how your rule helped select the winner. For example, do you choose the team with the largest score? The smallest?
2. Each team's predictions are provided here for your reference.
3. Answer the questions that follow.

Team Predictions:

Team A: 67.9 inches

Team B: 68.1 inches

Team C: 70.9 inches

Dataset A

The heights in this random sample are:

70.1, 61, 70.1, 68.1, 63, 66.1, 61, 70.1, 72.8, 70.9

Answer the following question, and record your response in the space below:

Based on these 10 data points, which team would you select as the winner? Explain how your rule was used to determine the winner.

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As judges, we want to make sure that our rule is consistent so we will test a new random sample of 10 student heights. Will the team you chose for Dataset A still be the winner?

Team Predictions:

Team A: 67.9 inches

Team B: 68.1 inches

Team C: 70.9 inches

Dataset B:

The heights in this random sample are:

70.1, 72, 68.9, 61.8, 70.9, 59.8, 72, 65, 66.1, 68.9

Answer the following questions and record your responses in the spaces below:

Based on these 10 data points, which team would you select as the winner?

Is the winner the same as the one you chose before? Explain.