In this scenario, we are dealing with the concept of the precision of an estimator, specifically the sample mean as an estimator of the true weight of a rock. The precision of the sample mean is influenced by the sample size and the variability of the measurements (standard deviation of the weights). Assuming that both Cameron and Jordan are using the same balance scale and the variability of their measurements is similar, we can focus on the impact of the sample size on the precision of their estimates.

The standard error (SE) of the sample mean, which measures the variability of the sample mean from the true mean, is given by:

\[ SE = \frac{\sigma}{\sqrt{n}} \]

where:

- \(\sigma\) is the standard deviation of the individual measurements,

- \(n\) is the sample size.

For Cameron, who weighs the rock 20 times, the sample size \(n = 20\). For Jordan, who weighs the rock 5 times, the sample size \(n = 5\).

Given this formula, we can compare the standard errors for both students:

- Cameron's SE: \( \frac{\sigma}{\sqrt{20}} \)

- Jordan's SE: \( \frac{\sigma}{\sqrt{5}} \)

Since \(\sqrt{20} > \sqrt{5}\), Cameron's standard error will be smaller than Jordan's. A smaller standard error indicates a more precise estimate of the true weight of the rock. Therefore, Cameron's average of 20 measurements will be closer to the true weight of her rock than Jordan's average of 5 measurements will be to the true weight of his rock.

\*\*Conclusion:\*\* Yes, one student’s weight estimate will be closer to the rock’s true weight than the other's. Cameron’s estimate will be closer because she uses a larger sample size (20 measurements), which results in a smaller standard error of the mean compared to Jordan's smaller sample size (5 measurements).