To evaluate the statement made by the student, let's analyze it in the context of statistical principles:

\*\*Statement:\*\* "I would not conclude anything from these data. The number of patients in the two groups is not the same so there is no fair way to compare the two formulas."

\*\*Analysis:\*\*

1. \*\*Sample Size Difference:\*\* The student's concern is that the sample sizes are different (100 in the new formula group and 150 in the old formula group). While it is true that the sample sizes are different, this alone does not invalidate the comparison. Statistical methods can handle different sample sizes in comparative studies.

2. \*\*Statistical Methods:\*\* Many statistical tests, such as the t-test for comparing means, can accommodate different sample sizes. The key is to ensure that the groups are randomly assigned, which they were in this case, reducing selection bias. The central limit theorem also suggests that with sufficiently large samples (both 100 and 150 are considered sufficiently large), the distribution of sample means will be approximately normal, allowing for valid comparisons.

3. \*\*Random Assignment:\*\* Since the patients were randomly assigned to the groups, this helps ensure that any differences observed are likely due to the treatment effect rather than confounding variables.

Given these points, the student's conclusion that there is no fair way to compare the two formulas due to different sample sizes is not valid. Statistical methods exist to handle such scenarios.

\*\*Conclusion:\*\*

(B) \*\*Not Valid.\*\*

The difference in sample sizes does not inherently prevent a fair comparison; statistical methods can account for this difference.