To evaluate the validity of the statement provided by the student, let's analyze the information given and the data presented in the graph.

The student's statement is: "The old formula works better. Two people who took the old formula felt relief in less than 20 minutes, compared to none who took the new formula. Also, the worst result - near 120 minutes - was with the new formula."

Here's the breakdown:

1. \*\*Two people who took the old formula felt relief in less than 20 minutes, compared to none who took the new formula.\*\*

- This is true based on the graph. There are two dots below 20 minutes for the old formula and none for the new formula.

2. \*\*The worst result - near 120 minutes - was with the new formula.\*\*

- This is also true based on the graph. The rightmost dot (near 120 minutes) is for the new formula.

However, while these points are factually correct, they do not necessarily lead to the conclusion that the old formula works better overall. Here are some considerations:

- \*\*Distribution and Central Tendency\*\*: The overall distribution of relief times should be considered. The graph shows that the majority of relief times for both formulas are clustered around similar values, with the new formula having a slightly wider spread but not necessarily worse in terms of median or mean relief time.

- \*\*Sample Size\*\*: The new formula was tested on 100 people, while the old formula was tested on 150. The larger sample size for the old formula might provide a more robust distribution, but it does not inherently make it better.

- \*\*Statistical Significance\*\*: The student's conclusion lacks a statistical analysis to determine if the differences observed are statistically significant. Simply citing extreme values does not provide a comprehensive view of effectiveness.

Given these points, the student's conclusion based on extreme values and small sample subsets is not a robust or comprehensive analysis of the effectiveness of the formulas. Therefore, the correct answer is:

(B) Not Valid.