As a graduate statistics student, my answer is:

(B) Not Valid.

The conclusion that "the old formula works better" is not statistically valid based on the evidence provided. The student is cherry-picking individual data points rather than analyzing the overall distributions.

Looking at the dot plots:

- While it's true that two people using the old formula experienced relief in under 20 minutes (and none in the new formula group did), and the maximum time was higher in the new formula group, these are just individual extreme values.

- The overall distribution shows that the new formula appears to have a center that is shifted to the left (lower time to relief) compared to the old formula.

- The new formula's distribution seems to have a peak around 50-60 minutes, whereas the old formula peaks around 65-75 minutes.

- Making conclusions based on just a few extreme values ignores the central tendency and overall pattern of the data.

A proper statistical analysis would consider measures of center (mean or median), variation, and would conduct appropriate hypothesis tests to determine if any observed difference is statistically significant, rather than focusing on just a few outliers.