Here's a breakdown of how to approach this problem as a graduate statistics student:

\*\*1. Key Considerations:\*\*

\* \*\*Relationship between Mean, Median, and Shape:\*\* The relationship between the mean and median provides crucial clues about the distribution's shape.

\* \*\*Mean < Median:\*\* The distribution is likely \*left-skewed\* (tail extending to the left).

\* \*\*Mean ≈ Median:\*\* The distribution is likely approximately \*symmetric\*.

\* \*\*Mean > Median:\*\* The distribution is likely \*right-skewed\* (tail extending to the right).

\* \*\*Skewness and Histogram Appearance:\*\*

\* In a \*left-skewed\* distribution, the bulk of the data is concentrated on the right, with a long tail to the left.

\* In a \*right-skewed\* distribution, the bulk of the data is concentrated on the left, with a long tail to the right.

\* \*\*Range and Histogram Scales:\*\* The minimum and maximum values (along with the mean) can inform you about where the histogram should begin and end, as well as a possible general location for the bulk of the data.

\*\*2. Analyzing the Data:\*\*

\* \*\*Mean = 26.8 mm, Median = 29.4 mm:\*\* Since the mean is less than the median, this strongly suggests the distribution is \*left-skewed\*.

\* \*\*Minimum = 12.mm, Maximum = 33.4mm:\*\* This gives us the overall range of the data.

\*\*3. Evaluating the Histograms:\*\*

\* \*\*Histogram A:\*\* This looks reasonably symmetric, with a mean and median close to each other. It doesn't match the left-skewed nature we're expecting.

\* \*\*Histogram B:\*\* This looks like a right-skewed distribution. The bulk of the data is on the left, with a tail extending to the right. This does not match what we're expecting.

\* \*\*Histogram C:\*\* This is the best fit. The bulk of the data is concentrated towards the right side of the graph with a long tail extending to the left. This aligns perfectly with our expectation of a left-skewed distribution.

\*\*4. The Answer:\*\*

Based on the data summaries and the shape of the histograms, the correct answer is likely \*\*(C)\*\*. Histogram C exhibits a left-skewed distribution, which is consistent with the mean being less than the median.