To determine which histogram is most likely to represent the data given in the study, we need to consider the following numerical summaries:

- \*\*Mean\*\*: 26.8 mm

- \*\*Median\*\*: 29.4 mm

- \*\*Standard Deviation\*\*: 5.0 mm

- \*\*Minimum\*\*: 12 mm

- \*\*Maximum\*\*: 33.4 mm

### Key Observations:

1. \*\*Mean vs. Median\*\*: The mean (26.8 mm) is less than the median (29.4 mm), which suggests that the distribution is skewed to the left (negatively skewed). This means there are some lower values pulling the mean down.

2. \*\*Range\*\*: The range (Maximum - Minimum) is 33.4 mm - 12 mm = 21.4 mm.

3. \*\*Standard Deviation\*\*: A standard deviation of 5.0 mm indicates that most of the data points are within approximately 26.8 ± 5.0 mm, i.e., between 21.8 mm and 31.8 mm.

### Analysis of Histograms:

- \*\*Histogram A\*\*: This histogram shows a distribution that is somewhat symmetric but with a slight left skew. The peak seems to be around 25-30 mm, which fits well with our mean and median values. The spread also seems to fit within the range of 12 mm to 33.4 mm.

- \*\*Histogram B\*\*: This histogram shows a distribution that is more symmetric and does not show a clear left skew. The peak is around 25-30 mm, but the distribution does not match the skewness suggested by the mean being less than the median.

- \*\*Histogram C\*\*: This histogram shows a clear right skew (positively skewed), which is opposite to what we expect from the mean being less than the median. This histogram is not a good fit.

Given these observations, \*\*Histogram A\*\* is the most likely to represent the data since it shows a slight left skew, which aligns with the mean being less than the median, and the spread of the data fits within the given range.

Therefore, the correct answer is:

\*\*(A) Histogram A\*\*