Here's how a graduate statistics student would approach this problem:

\*\*Understanding the Problem:\*\*

The question asks us to relate the mean and median of a dataset based on its histogram. Key concepts here are:

\* \*\*Mean:\*\* The average of all the data points.

\* \*\*Median:\*\* The middle value when the data is ordered.

\* \*\*Skewness:\*\* The asymmetry of a distribution. A distribution is right-skewed if it has a long tail extending to the right, and left-skewed if it has a long tail extending to the left.

\*\*Analyzing the Histogram:\*\*

1. \*\*Shape:\*\* The histogram appears to be skewed to the right. The tail of the distribution extends towards the higher values on the right side of the graph.

2. \*\*Impact of Skewness:\*\* In a right-skewed distribution, the mean is typically pulled to the right (towards the longer tail) by the larger values in the tail. The median is less sensitive to extreme values and is more likely to fall near the "peak" of the distribution.

\*\*Connecting Shape to Mean and Median:\*\*

\* Because the distribution is right-skewed, we expect the mean to be larger than the median.

\*\*Answer:\*\*

Therefore, the correct answer is \*\*(D) mean > median\*\*.