6. [9 points] As part of his exercise routine, a man goes for walks of various lengths of time. The lengths of the man’s walks, where \( t \) is measured in minutes, are described by the density function \( w(t) \). A portion of the graph of \( w(t) \) is shown below.

\[ y = w(t) \]

\[ t \]

\[ 0.05 \quad 0.1 \]

a. [3 points] Complete the following English sentence:

The fraction of the man’s walks that are between 20 and 28 minutes long is . . .

b. [3 points] Circle the one sentence below that BEST corresponds to the mathematical statement \( w(3) \approx 0.028 \).

i. Approximately 3% of the man’s walks last between 0.028 and 1.028 minutes.

ii. Approximately 1.4% of the man’s walks last between 3 and 3.5 minutes.

iii. Approximately 28% of the man’s walks last between 3 and 4 minutes.

iv. Approximately 2.8% of the man’s walks last exactly 3 minutes.

v. Approximately 3% of the man’s walks last approximately 2.8 minutes.

c. [3 points] Does the man take any walks that last longer than 32 minutes? Explain.

Circle one: YES NO NOT ENOUGH INFORMATION

Explanation: