

A 95% confidence interval for  $\mu$  is calculated to be (20,30). What do we mean when we say:

“We’re 95% confident that  $\mu$  is between 20 and 30.”

OR

“The believable values for  $\mu$  at the 95% confidence level are 20 to 30.”

???

Are any of the following correct interpretations of the above statements?

- A) The probability that  $\mu$  lies in the interval (20,30) is .95.
- B) In repeated sampling, 95% of the intervals constructed in this manner will contain the interval (20,30).
- C) In repeated sampling,  $\mu$  will lie in the interval (20,30) 95% of the time.
- D) In repeated sampling, 95% of the intervals constructed in this manner will contain  $\mu$ .