

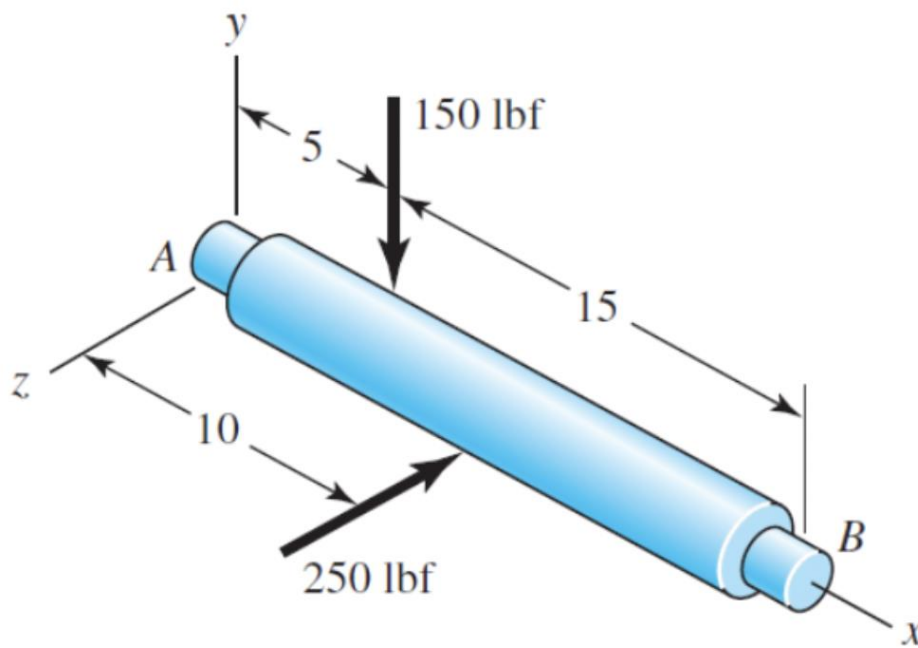
INSTRUCTIONS:

This quiz is open-book and open-note, and you may work with your classmates. Please answer all questions and show all of your work.

GIVEN:

The steel shaft shown is supported by ball bearings at locations *A* and *B*. Dimensions are in inches.

A catalog page with bearing specifications is attached.



FIND:

- The radial load supported by bearing A.
- Using the bearing specifications attached, how many cycles do you predict for bearing A for 95% reliability?