

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:

We are considering two different ball bearings for a design. One is bearing number 361203R, provided by SKF, which rates its bearings for  $10^6$  cycles. The other is bearing number 6303, provided by Timken, which rates its bearings for 300 hours at 500 rev/min.

FIND:

(a) Fill in the table below using the attached catalog pages.

<b>Manufacturer</b>	<b>Bearing No.</b>	<b>Basic Dynamic Load Rating (<math>C_{10}</math>)</b>	<b>Rating System (Life Rating)</b>
Timken	6303		
SKF	361203 R		

(b) Determine which of these two bearings can carry the higher load.