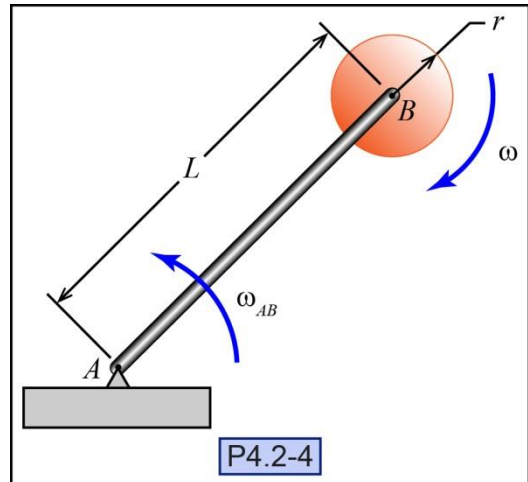


**P4.2-4)** A bar rotates with an angular velocity of  $\omega_{AB} = 4 \text{ rad/s}$  in the direction shown. A disk, attached to the bar's end, rotates independently with an angular velocity of  $\omega = 10 \text{ rad/s}$  in the direction shown. If the radius of the disk is 10 cm and the length of the bar is 80 cm, determine the location on the body with the greatest speed and determine the value of that speed.

Given:



Find:

Solution:

**Determine the velocity of point B.**

$\mathbf{v}_B =$  \_\_\_\_\_

**Determine which point on disk has the greatest speed and determine what is the value of the speed.**

Indicate on the figure which point has the greatest speed.

$v =$  \_\_\_\_\_