**3.*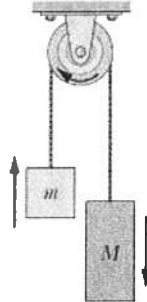* In the Figure, one block has mass $M = 510$ g, the other has mass $m = 420$ g, and the pulley, which is mounted in horizontal frictionless bearings, has a radius of 6.00 cm. The pulley is a uniform pulley of mass 310 g.

A. Draw Free Body Diagrams for both blocks and the pulley.

B. What is the magnitude of the block's acceleration?

C.   What is the tension in the part of the cord that supports the heavier block?

D. What is the tension in the part of the cord that supports the lighter block?

E. What is the magnitude of the pulley's angular acceleration?