6. (25 points) Shown below is a 10 kg drum and a 10 kg disk. A cable is wrapped around the drum and attached to the center of the wheel, which rolls without slip. At the instant shown, drum A has an angular velocity of 8 rad/sec. At this instant, please determine the total kinetic energy stored in this system.

Wheel B: 10 kg
Rolls with no slip.
Treat both A and B as thin disks.

Drum A: 10 kg

\[ \omega_A = 8 \text{ rad/sec} \]