



NAME \_\_\_\_\_

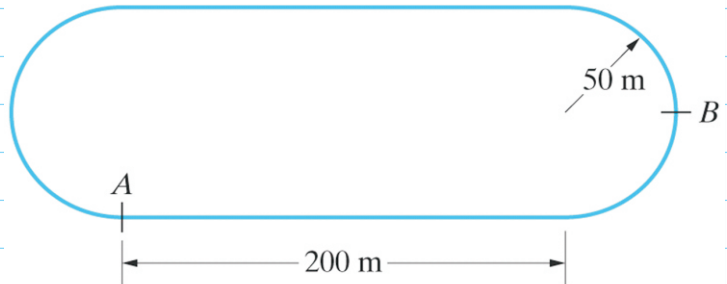
DATE \_\_\_\_\_

WEEK: \_\_\_\_\_

PROBLEM: \_\_\_\_\_

**GIVEN:**

After subjecting the car design described in Problem 13.116 to wind tunnel testing, the students estimate that the tangential component of the car's acceleration will be  $a_t = 0.6 - 0.002v^2$  m/s<sup>2</sup>, where  $v$  is the car's velocity in m/s. If the car starts from rest at  $A$ , what are its velocity and acceleration in terms of normal and tangential components when it reaches  $B$ ?

**REQUIRED:****SOLUTION:**