

**Problem 148A**

The aerodynamics of an automobile traveling at  $60\text{km/hr}$  are to be examined in a wind tunnel using a one third scale model. At what speed should the wind tunnel be operated to properly model the boundary layers and other viscous effects? At  $20^\circ\text{C}$  water has a kinematic viscosity approximately one half of that of air; at what speed should the model be tested in a water tunnel?