

**Problem 352C**

Consider a supersonic flow impinging symmetrically on a wedge of half-angle,  $30^\circ$ . What is the critical Mach number above which the oblique shocks are attached to the apex of the wedge and below which the shock is detached and positioned upstream of the wedge? At this critical Mach number, what is the inclination of the oblique shocks to the oncoming stream?