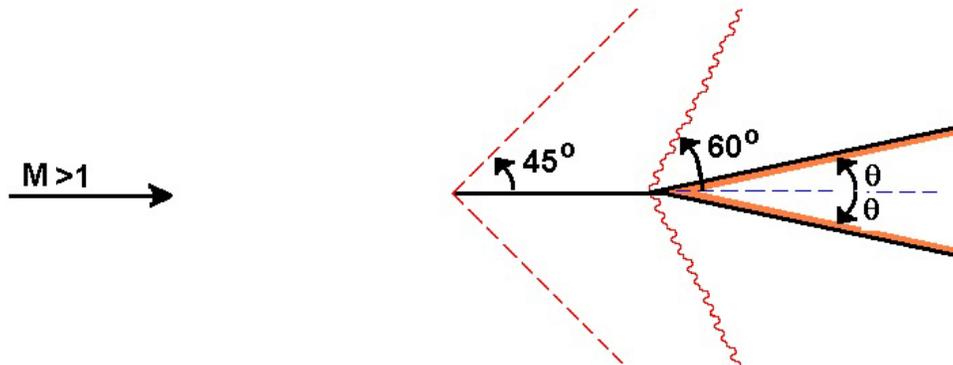


Problem 352E

Experimental observations of the supersonic flow past a two-dimensional wedge indicate that an oblique shock is formed at an angle of 60° to the oncoming flow:



Then, a second experiment is carried out after a very slender probe has been attached to the front of the wedge as shown in the sketch. A Mach wave is observed to occur, inclined at 45° to the oncoming stream. What is the wedge angle, $\delta = 2\theta$?