

Problem 2.3-2

The plane structures shown consist of rigid weightless bars connected by linear springs, each of stiffness k . Degrees of freedom are horizontal translations u_i and small rotations θ_i for $i = 1, 2$, as shown. Vertical motion and out-of-plane displacements are not allowed. In each case determine the 4 by 4 structure stiffness matrix in terms of k and b .