Problem M3 (Materials and Structures)

In this question you are asked to examine equilibrium in 2-D

    Referring back to the grid, and the applied forces and moments in question M2 determine whether the grid can be held in equilibrium by the application of the following combinations of additional forces and moments. In cases where equilibrium can be achieved express the necessary forces and moments as vectors. In cases where equilibrium cannot be achieved, explain why?

    a). The application of a force at O?

    b) The application of a moment at O?

    c) The application of a force and moment at O?

    d) The application of a pair of 20 N forces at (-1,0,0) and (+1,0,0). The forces do not necessarily have to act in parallel directions.