The rectangular thin plate shown below is subjected to a concentrated transverse load *F* at the corner *B*. Show that w = Axy produces the correct solution. Determine the constant *A*, deflection w, internal forces, and reaction forces.



2. The rectangular thin plate shown below is subjected to uniformly distributed moment M along the two simply supported edges (OA, BC) and vM along the two free edges (OC, AB). Show that the resultant deflection w is a function of x only. Determine the deflection w, internal forces, and reaction forces.



3. The rectangular thin plate shown below is subjected to distributed transverse loading

 $q = q_0 \sin \pi x / a \sin \pi y / b$. Show that $w = A \sin \pi x / a \sin \pi y / b$ produces the correct solution.

Determine the constant A, the deflection w, and internal forces.



4. The rectangular thin plate shown below is subjected to a concentrated transverse load *F* at the center. Determine the maximum deflection w_{max} .

