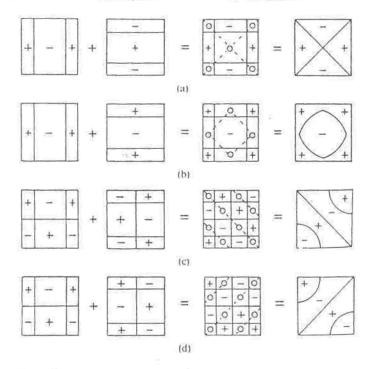
UIUC Physics 406 Acoustical Physics of Music

84 3. 1 wo-Dimensional Systems: Membranes, Plates, and Shells



RE 3.12. Graphical construction of combination modes in a square isotropic plate: (a) (2, 0) - (0, 2), x mode; (b) (2, 0) + (0, 2), ring mode; (c) (2, 1) - (1, 2) mode: and (d) (2, 1) + (1, 2) mode.

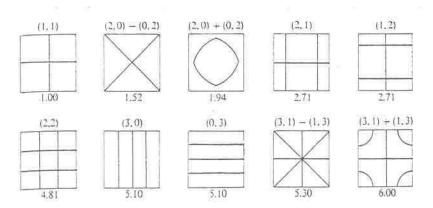


FIGURE 3.13. The first 10 modes of an isotropic square plate with free edges. The modes are designated by m and n, the numbers of nodal lines in the two directions, and the relative frequencies for a plate with $\nu = 0.3$ are given below the figures.