# Modal Vibrations of Flat 2-D Rectangular Plates
## & Stretched 2-D Rectangular Membranes:

**B.C.'s:** Edges of a flat rectangular plate can be *fixed* or *free*, or *simply supported*…
$\Rightarrow$ different boundary conditions for 2-D wave equation on rectangular plate…
$\Rightarrow$ different allowed solutions for vibrational modes – again, two indices $m$, $n$
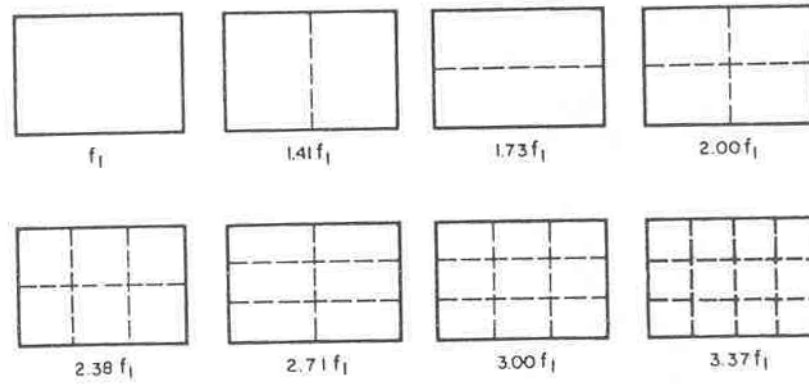


FIG. 15. Some of the modes of vibration of a stretched rectangular membrane. The length of the membrane is 1.41 times the width.
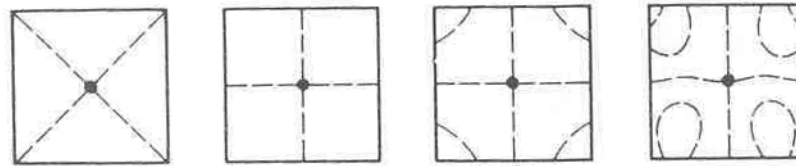


FIG. 16. Some of the modes of vibration of a square plate fixed at the center and set into oscillation by bowing.