

Name _____ Student number _____

Home assignment 2

Consider free vibration of a rectangular membrane of side lengths $2L$ and L , density ρ , thickness t , and tightening S' . If the edges are fixed, find the angular velocities of the free vibrations using a regular grid $(i, j) \in \{0, 1, 2, 3, 4\} \times \{0, 1, 2\}$ of constant spacing and the Finite Element Method with a piecewise linear approximation on regular triangle elements. Consider the modes, that are reflection symmetric with respect to the lines through the center point (figure).

