Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Home assignment 1**

A string of length and tightening  is loaded by point forces of magnitudes *P* as shown. If the ends are fixed and the initial geometry without loading is straight, find the transverse displacements at the grid points using the finite difference method (FDM) on a regular grid .



*L*







0

1

2

3