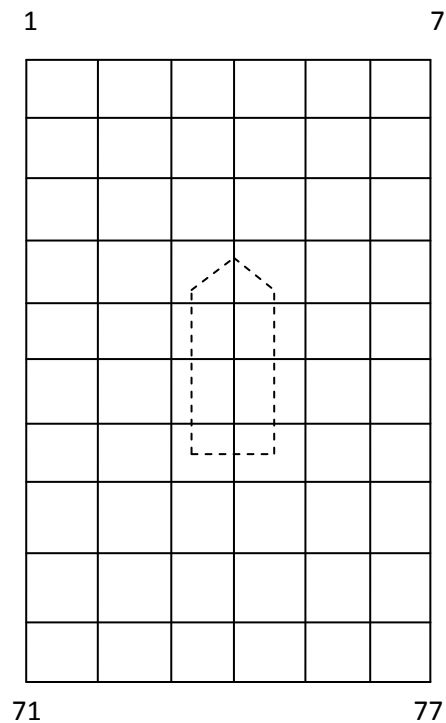


### 3Dvisu Wave Field Grid

The wave field in the 3Dvisu program is made of square panels of which the size can be given in the aNySim input ini-file. For checking purposes the wave height at any vertex of this wave field can be written to file. This option requires an array in the ini-file with the indices of the requested vertices. To use this option it must be clear how the vertices are numbered. The following plot shows a small wave field with  $7 * 11 = 77$  vertices:



The numbering of the vertices starts at the forward, port side corner of the wave field (index = 1) and then increases from left to right, row by row, as if reading lines on a page. The last vertex is at the aft, starboard corner.

The number of vertices in length and breadth is always odd. As a result, the centre vertex with index  $(Nlength * Nbreadth + 1) / 2$  is at the geometric origin of the vessel flight file.

The number of vertices in length follows from the vessel  $Lpp$ , the  $VisuGridLFactor$  and the  $VisuGridCellSize$ :

$$Nlength = (VisuGridLFactor * Lpp) / VisuGridCellSize$$

If the truncated result is even  $Nlength$  is increased by 1.  $Nbreadth$  is derived in the same manner.

The values of  $Nlength$  and  $Nbreadth$  are written to the DOS-box at the start of 3Dvisu.