



Figure 1: A diagram illustrating the sequence of  $|\lambda_f|$  for all  $f \in \mathcal{I}_2$  and  $m = 7$ . The maximum value belongs to  $x_5x_6$ , which gives  $|\lambda_{x_5x_6}| = 2(m-2) = 10$ . The sequence of  $S_j$  is symmetric: 1, 1, 2, 2, 3, 3, 3, 2, 2, 1, 1.