

Do [As [i , 1, $n - 1$],

$$\Delta_{j_ , k_} [a[i]] = U_j[a[i]] U_k[] + U_j[] U_k[a[i]];$$

$$\Delta_{j_ , k_} [A[i][n_]] = U_j[A[i][n]] U_k[A[i][n]];$$

$$\Delta_{j_ , k_} [x[i, i + 1]] = U_j[x[i, i + 1]] U_k[A[i][1]] + U_j[A[i][-1]] U_k[x[i, i + 1]]$$

];

Do [As [i , 1, $n - 2$], As [n , $i + 2$, n],

$$\Delta_{j_ , k_} [x[i, n]] = m_{k, k1 \rightarrow k} [m_{j, j1 \rightarrow j} [\\ q \Delta_{j, k} [x[i, n - 1]] \Delta_{j1, k1} [x[n - 1, n]] - q^{-1} \Delta_{j, k} [x[n - 1, n]] \Delta_{j1, k1} [x[i, n - 1]] \\]]$$

]