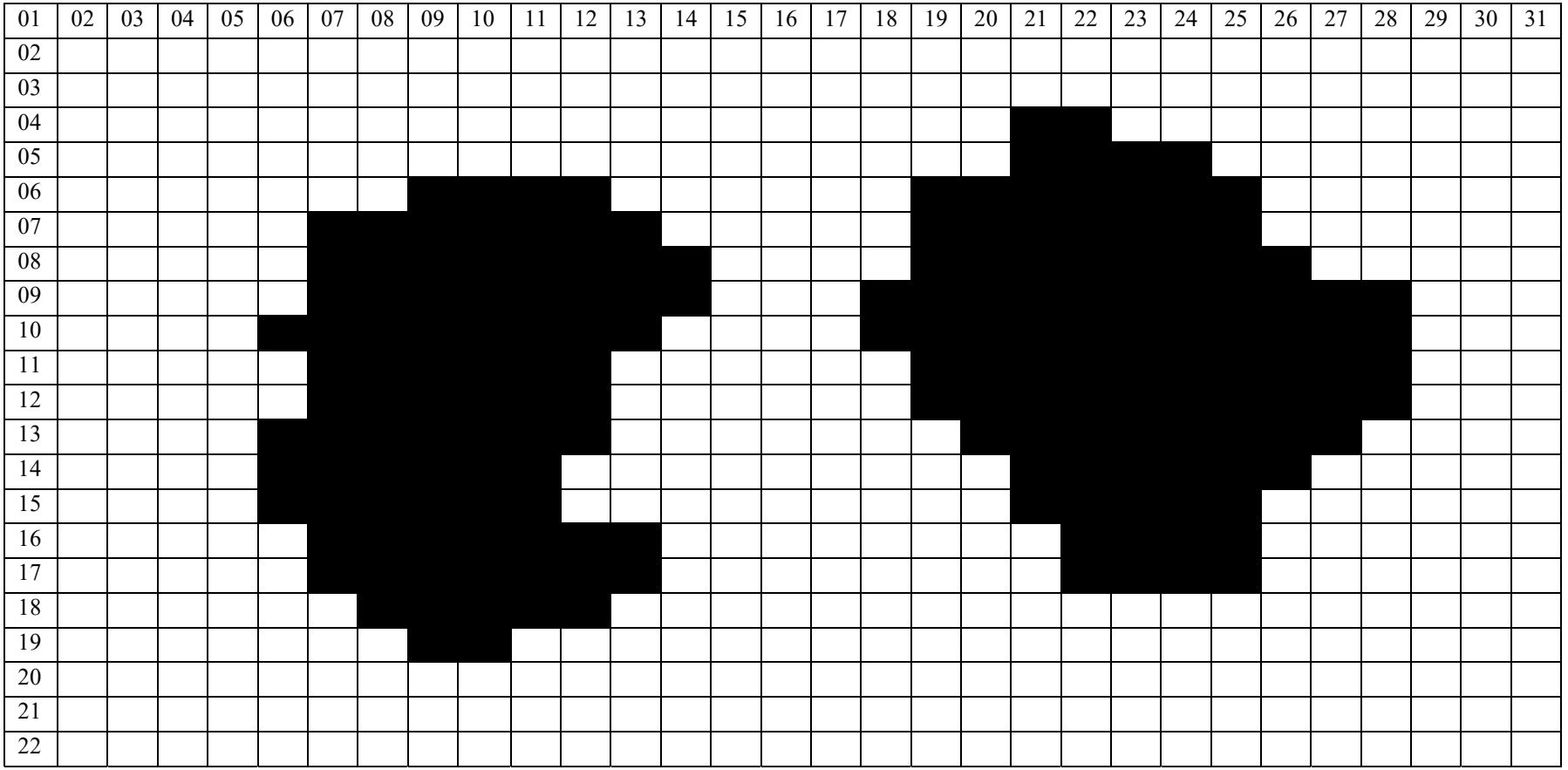
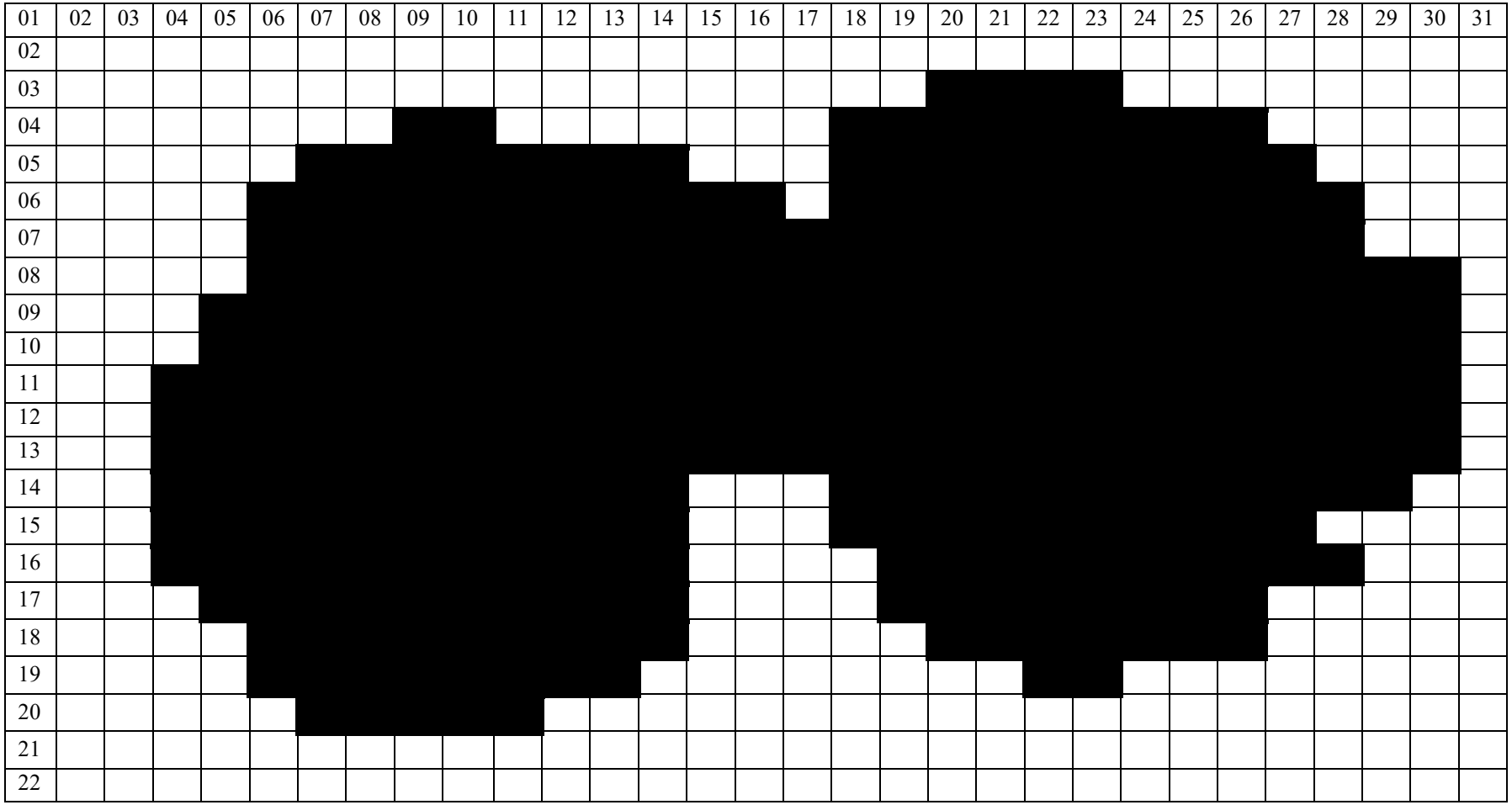
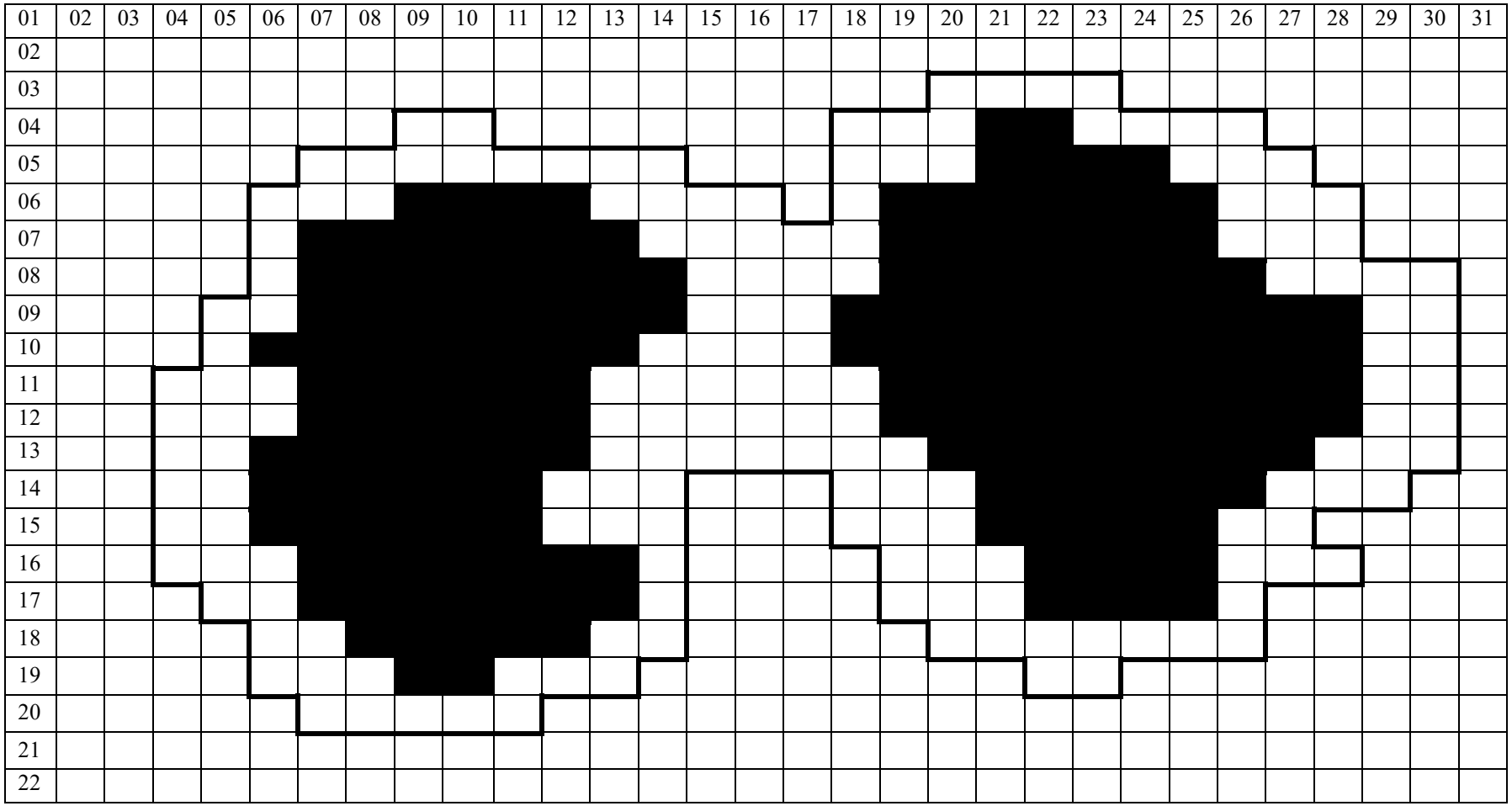


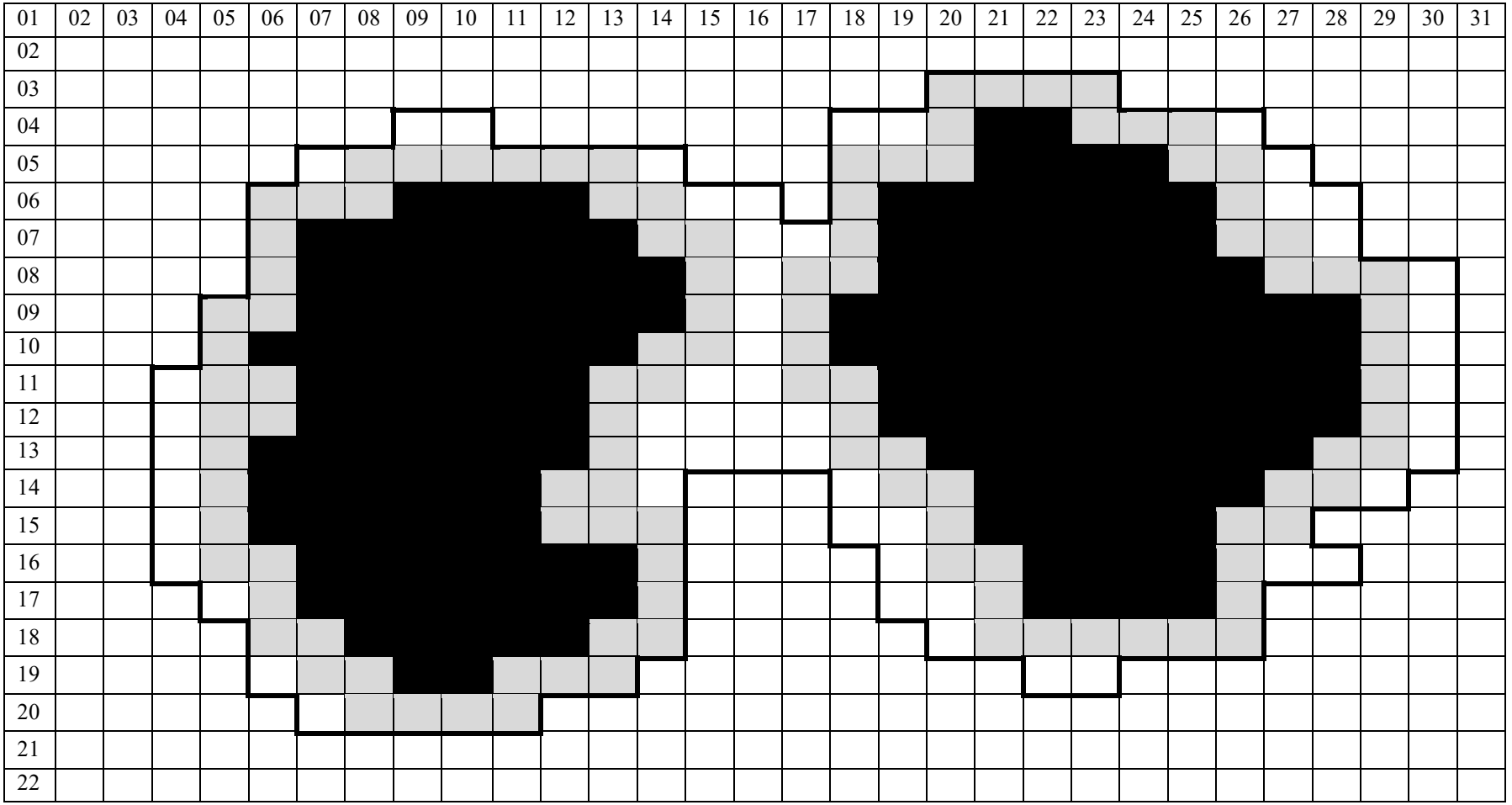
Two connected components $C[n-1] = C_{n-1}(M_1) \cup C_{n-1}(M_2)$ (two solid black regions).



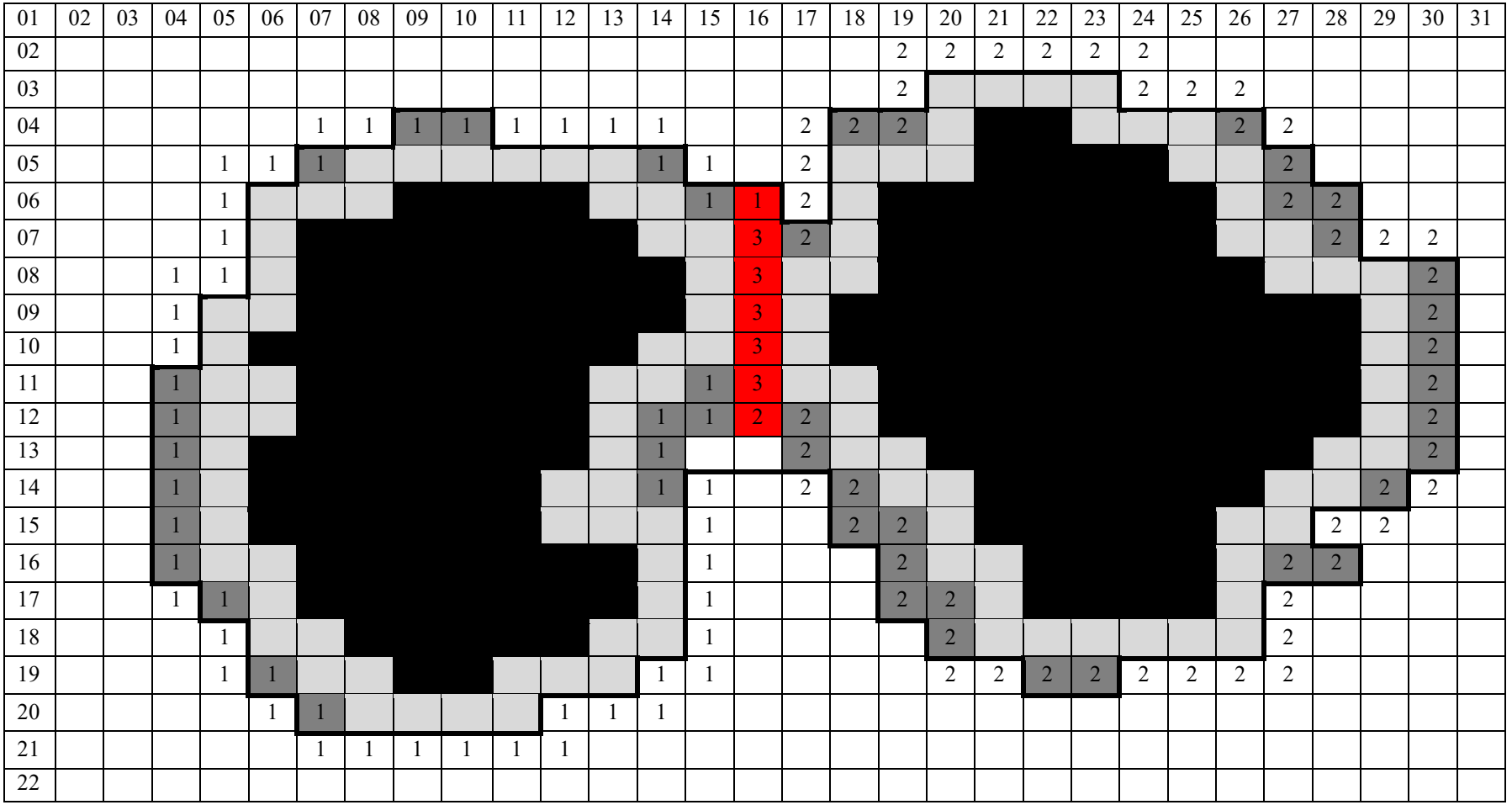
q = connected component obtained from rising the water level by one.



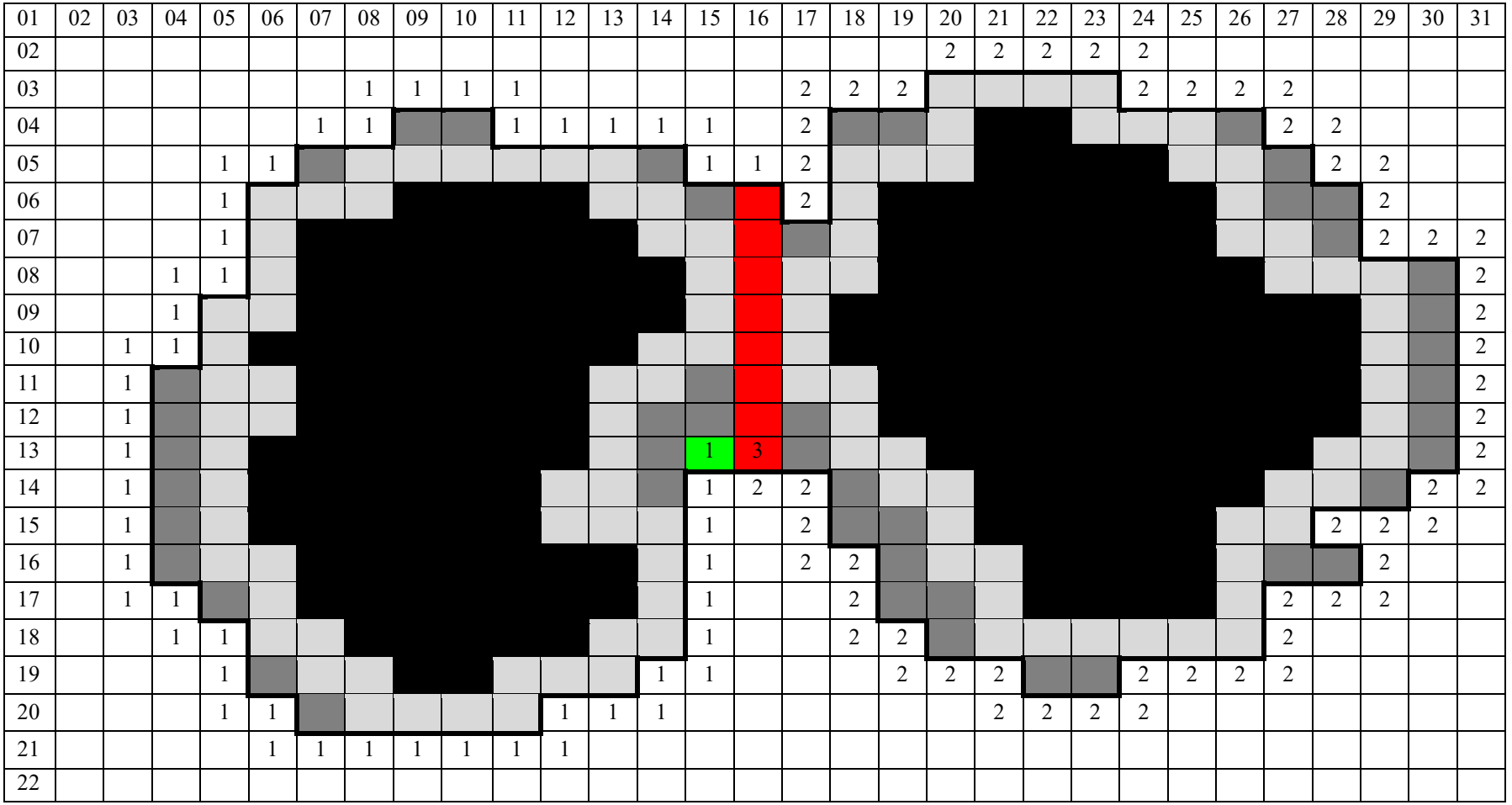
Two connected components C[n-1] (two solid black regions). q = connected component obtained from rising the water level by one (enclosed by a solid line).



Two connected components C[n-1] (two solid black regions). q = connected component obtained from rising the water level by one (enclosed by a solid line). It shows the results after the first dilation. Light grey boxes represent the extra boxes added after the first dilation.



Two connected components C[n-1] (two solid black regions). q = connected component obtained from rising the water level by one (enclosed by a solid line). Light grey boxes represent the extra boxes added after the first dilation. It shows the results after the second dilation. Medium grey boxes represent the extra boxes added after the second dilation and within q. Red boxes represent dam points, which would cause the sets being dilated to merge.



It shows the results after the third dilation. Green boxes represent the extra boxes added after the third dilation and within q. Red boxes represent dam points, which would cause the sets being dilated to merge. After three dilations, dam has been built and there are still two components $C_{n-1}(M_1) \cup C_{n-1}(M_2)$.

COMP4421: Watershed Algorithm: Dam construction