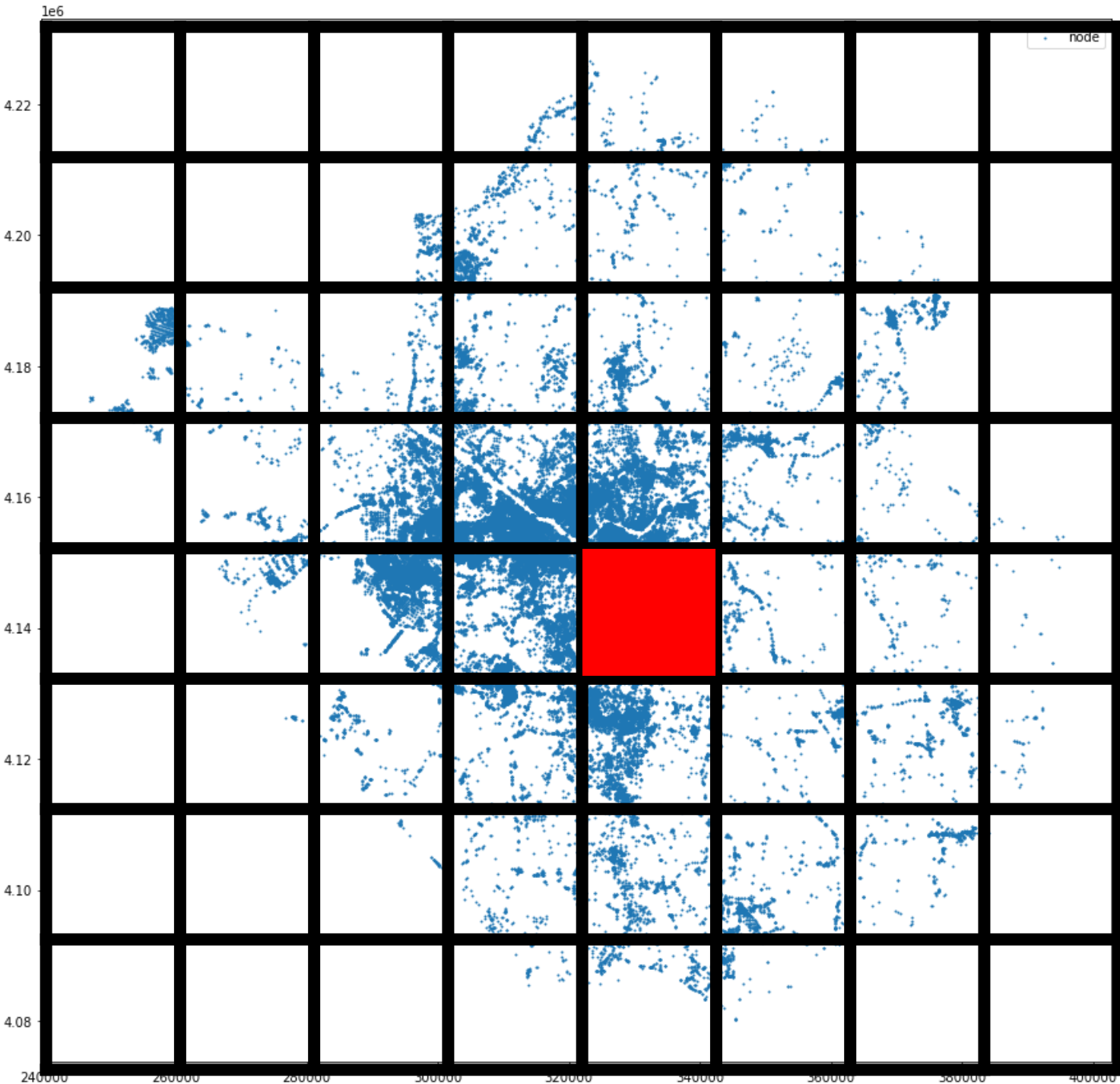
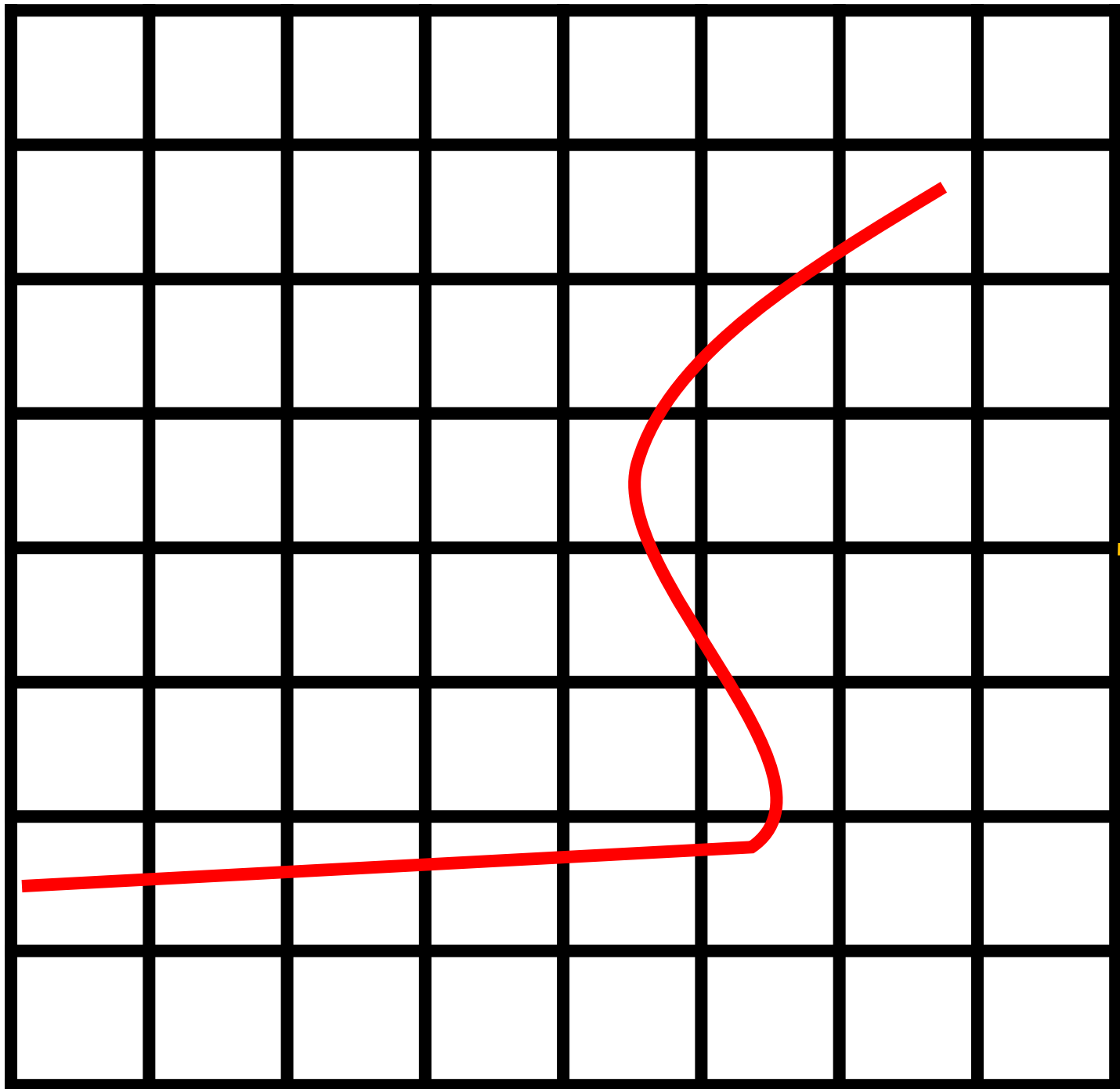
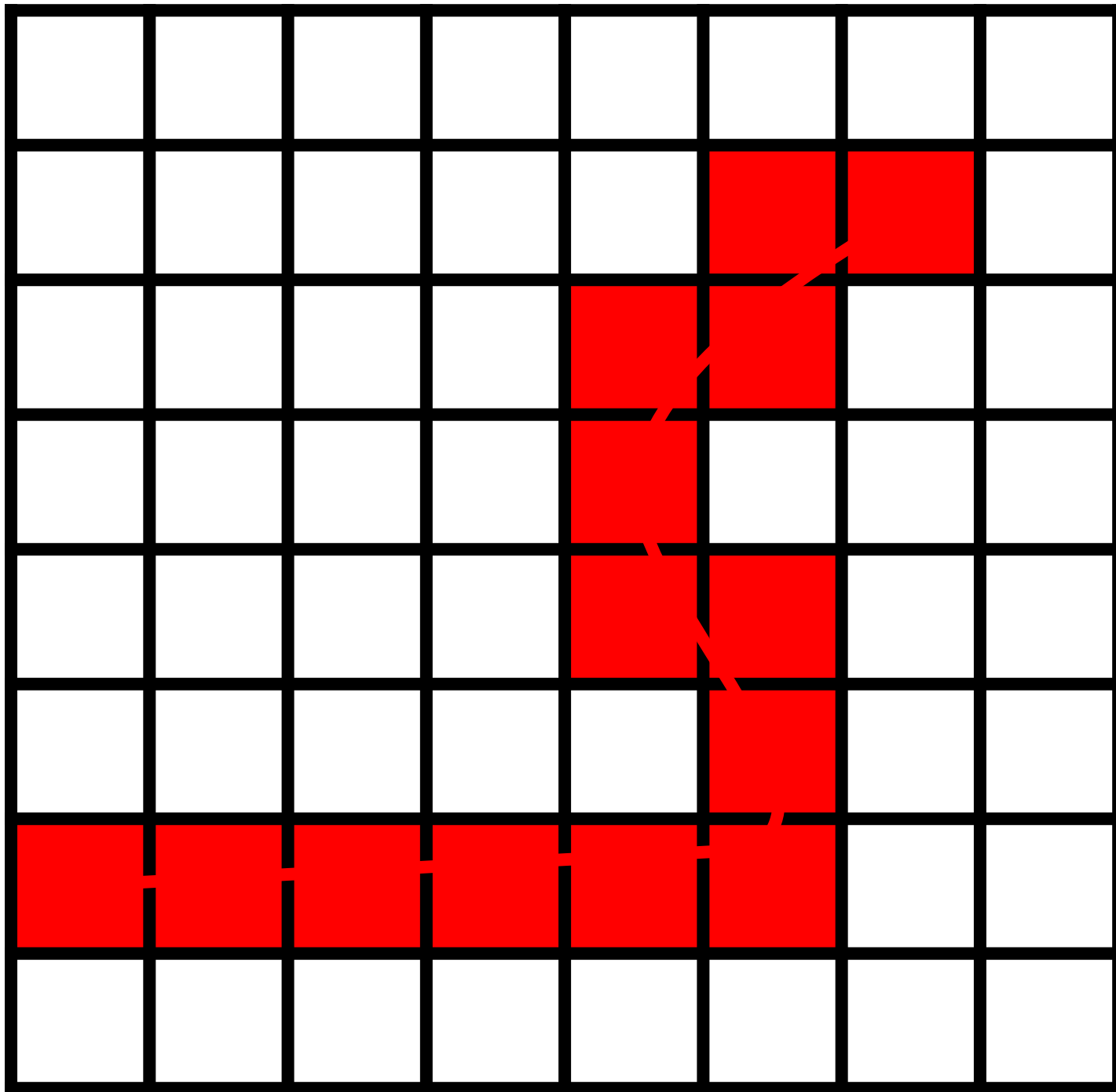


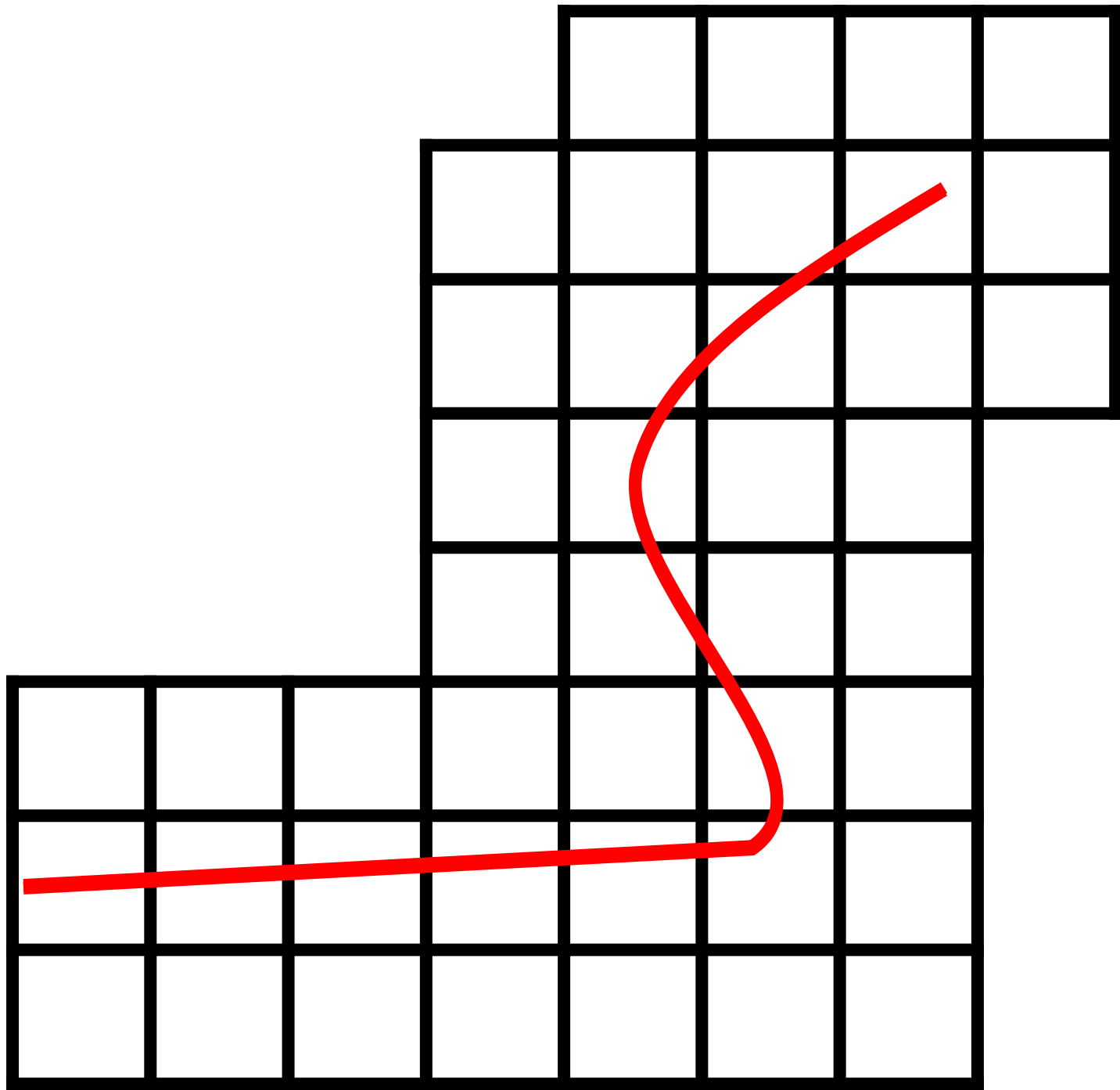
Grid setting

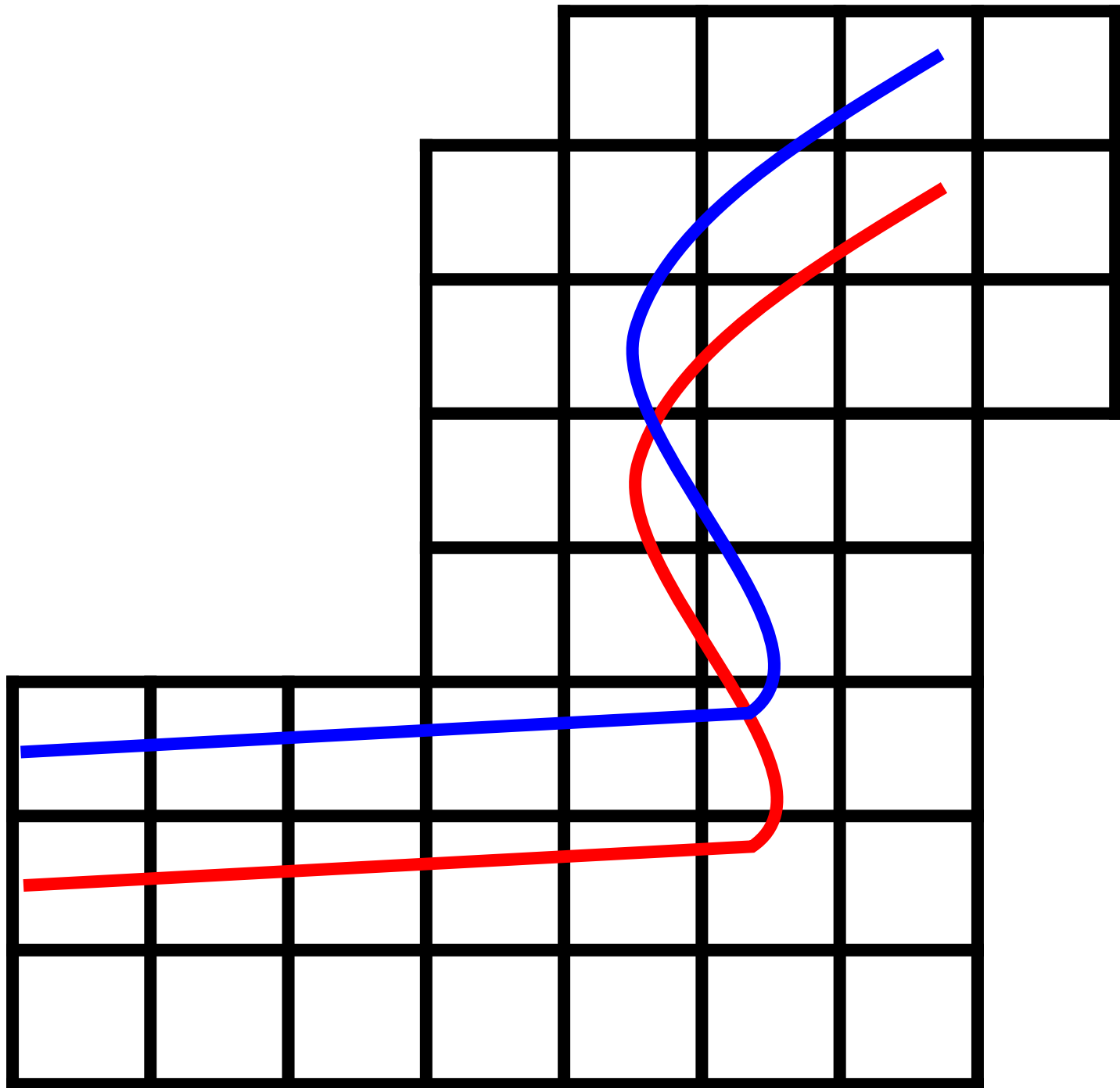


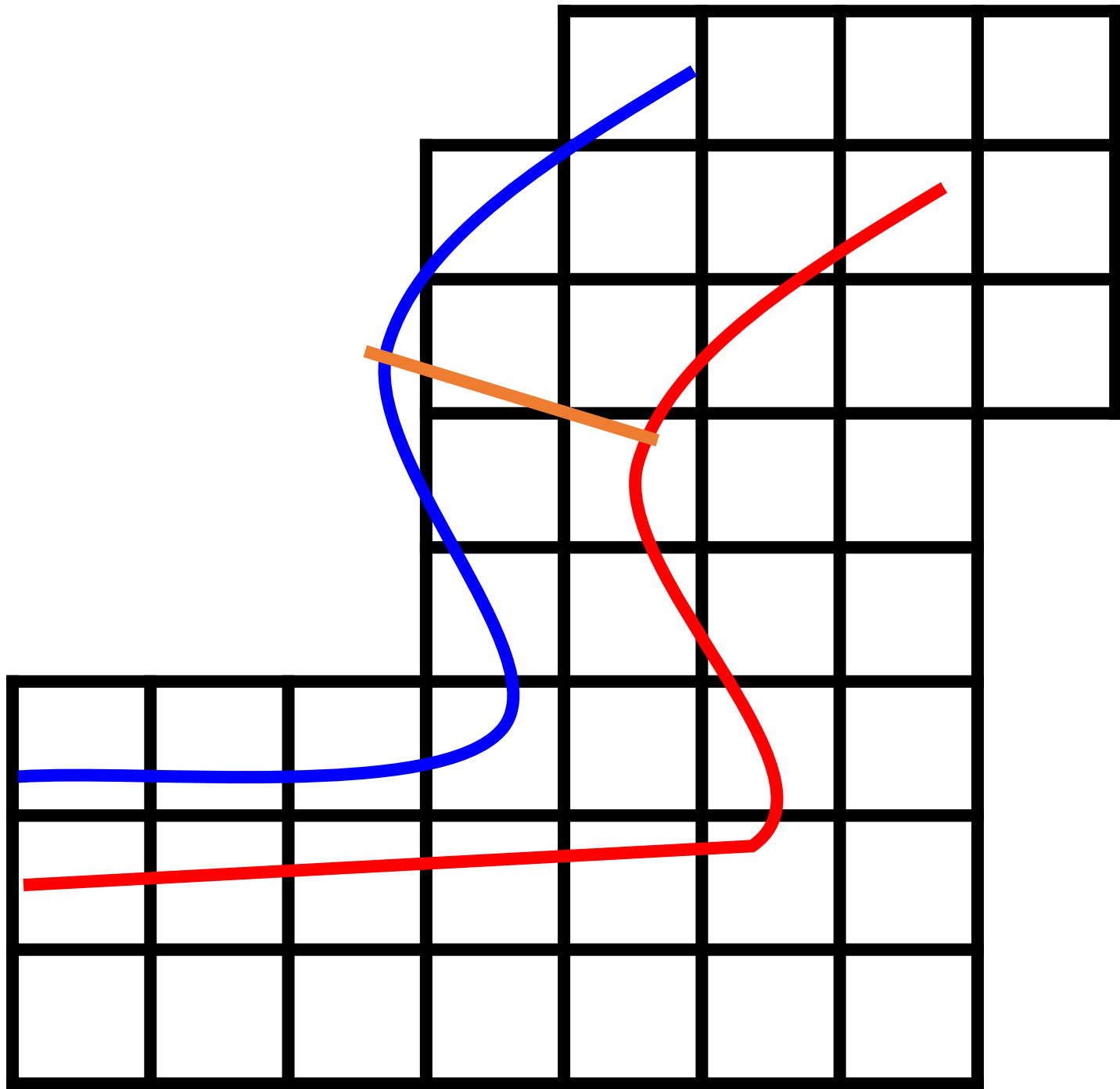


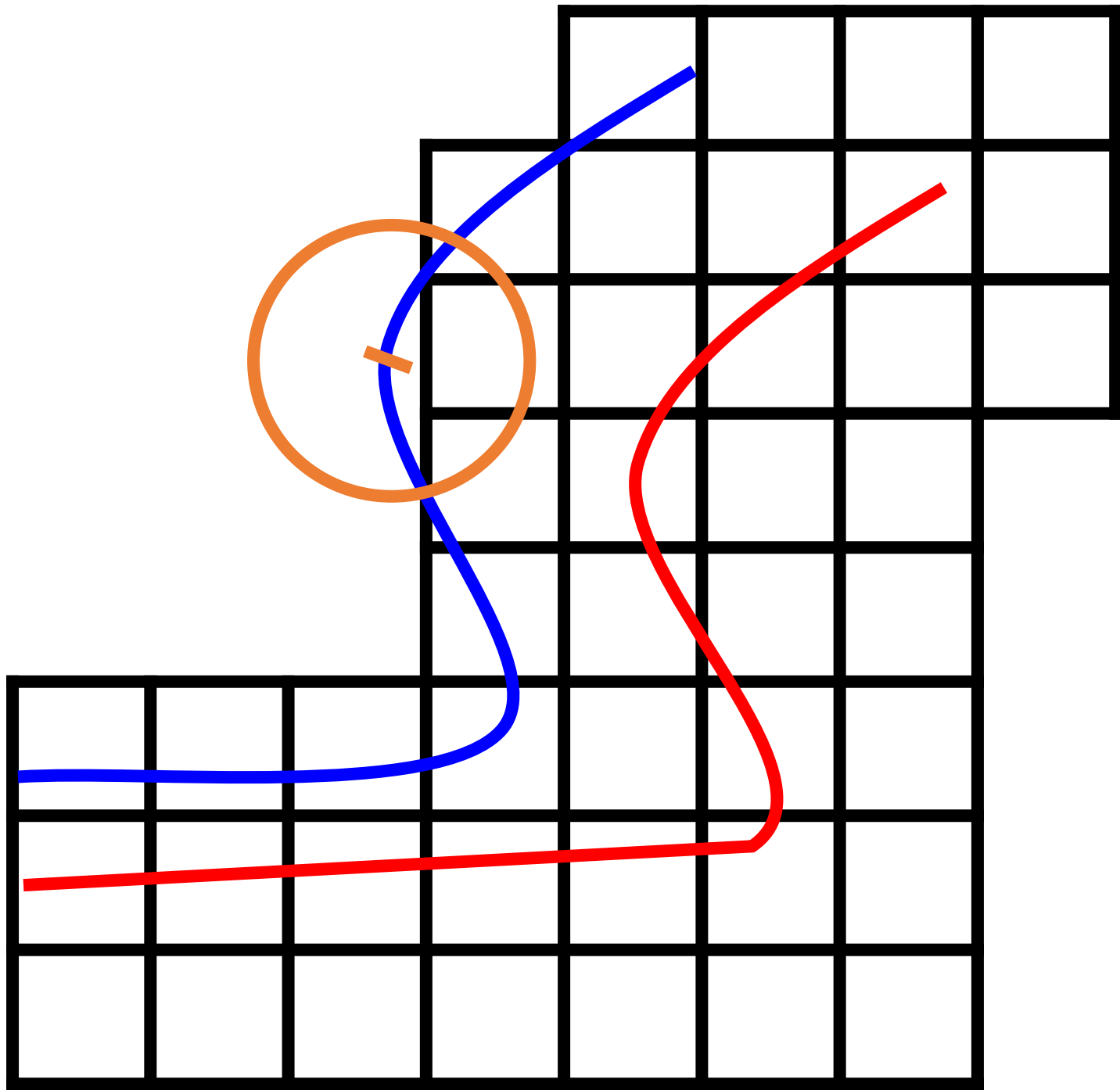
200m

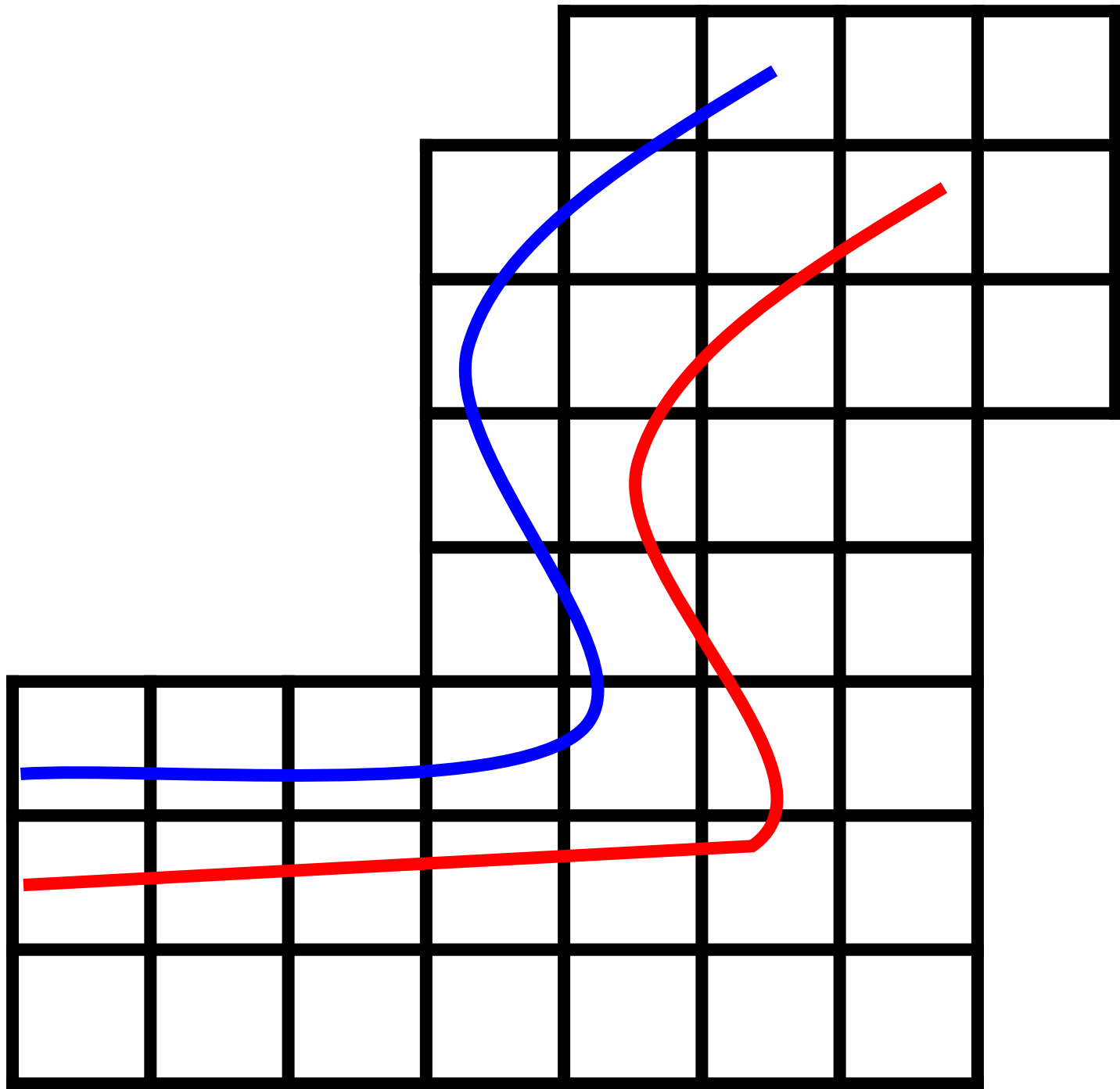












Code

```
In [55]: def point_grid_id(point):
         num = int((point[0]//200-20400)*743 + (point[0]//200-1234))
         return num
```

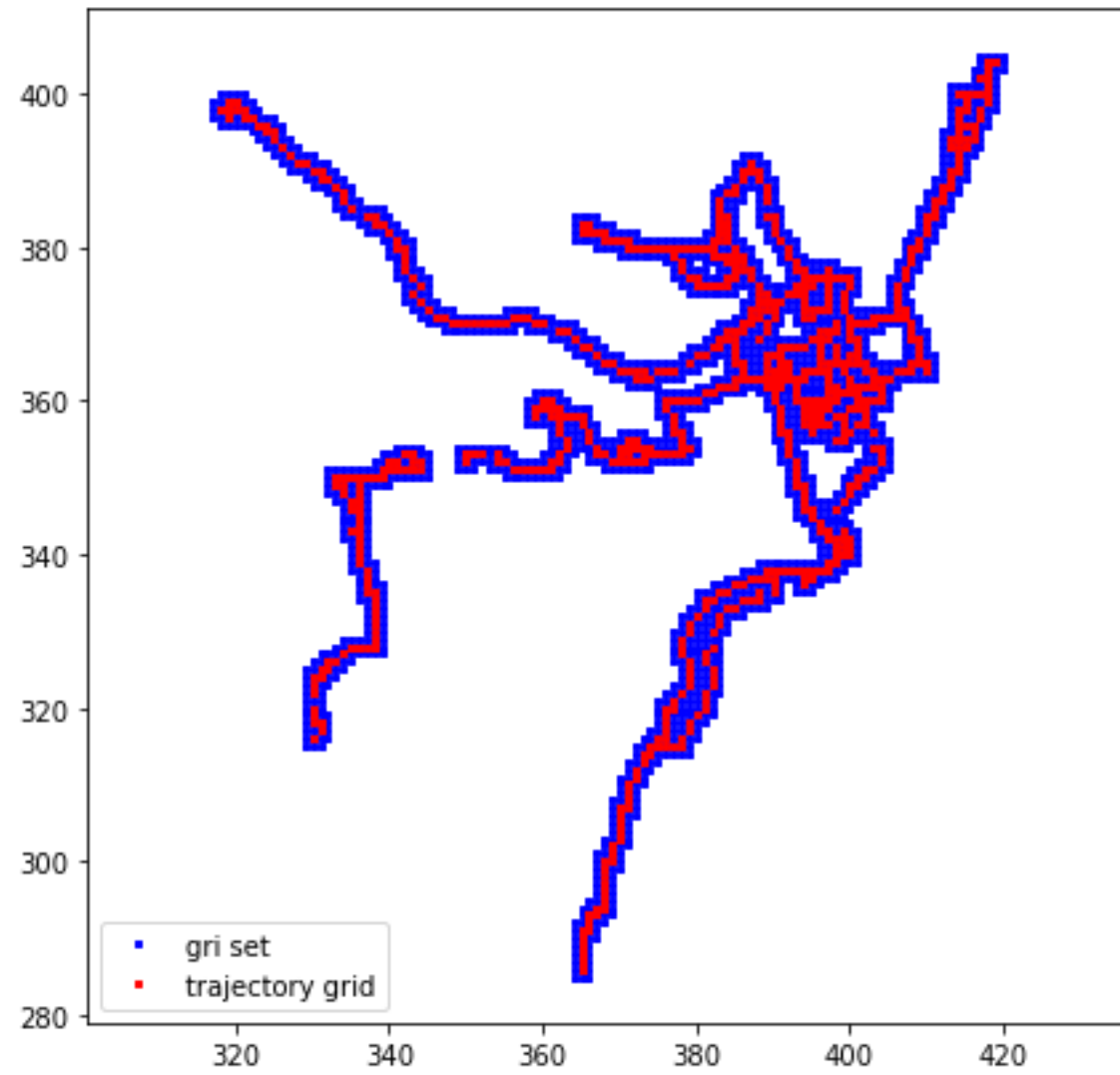
```
In [56]: def trajectory_grid_id(trajectory):
         l = []
         for j in trajectory:
             l.append(int(j[0]//200-1234 + (j[1]//200-20400)*734))
         return l
```

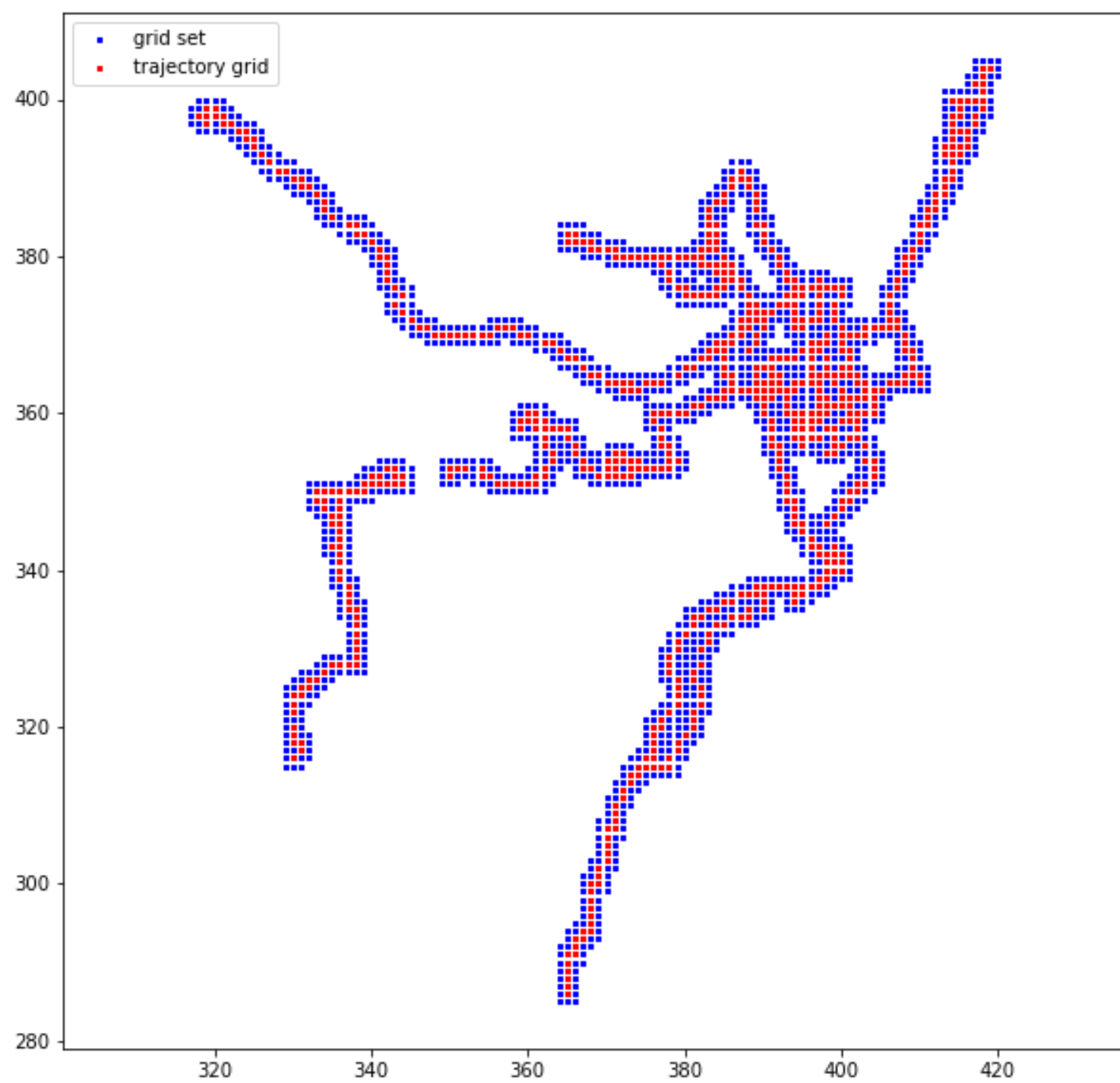
```
In [57]: def grid_set_id(trajectory):
         tot = []
         grid_raw = trajectory_grid_id(trajectory)
         for i in grid_raw:
             grid_list = [i+733, i+734, i+735, #
                          i-1, i, i+1, #
                          i-735, i-734, i-733]
             for j in grid_list:
                 tot += [j]
         tot = set(tot)
         return tot
```

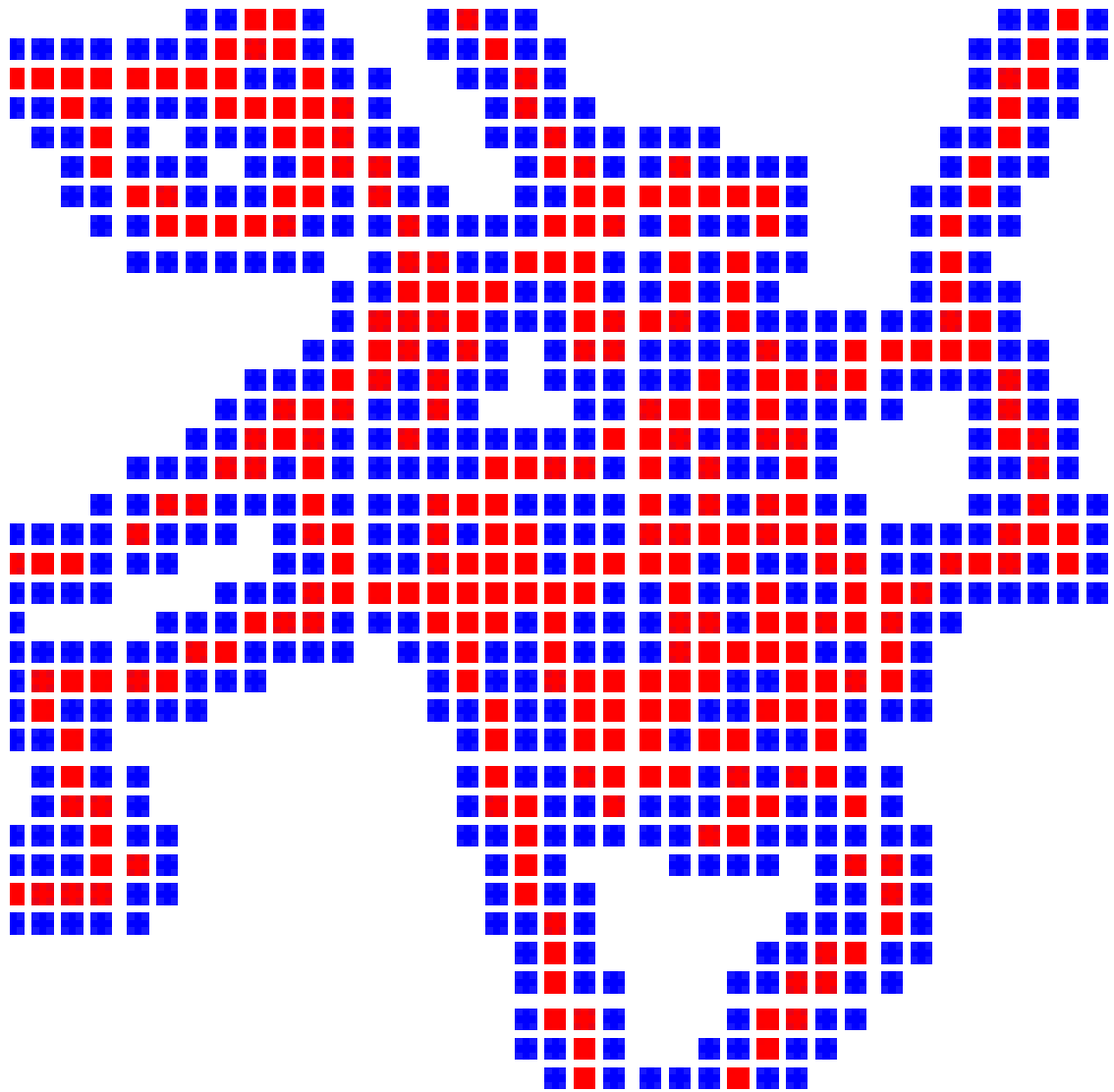
```
In [60]: grid = [], []
grid_1 = [], []
for i in k:
    grid[0].append(i%734)
    grid[1].append(i//734)

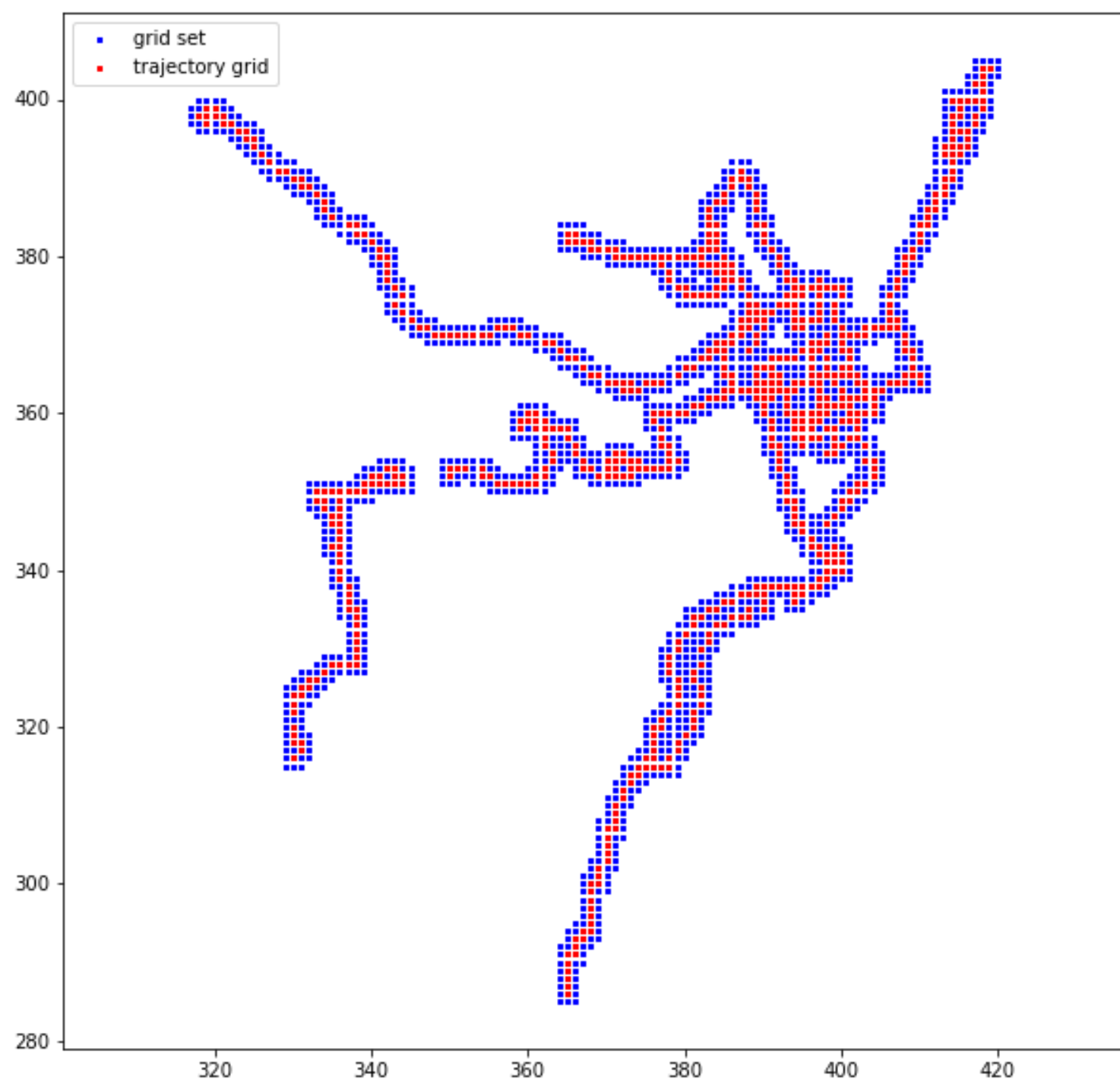
for i in k_1:
    grid_1[0].append(i%734)
    grid_1[1].append(i//734)
```

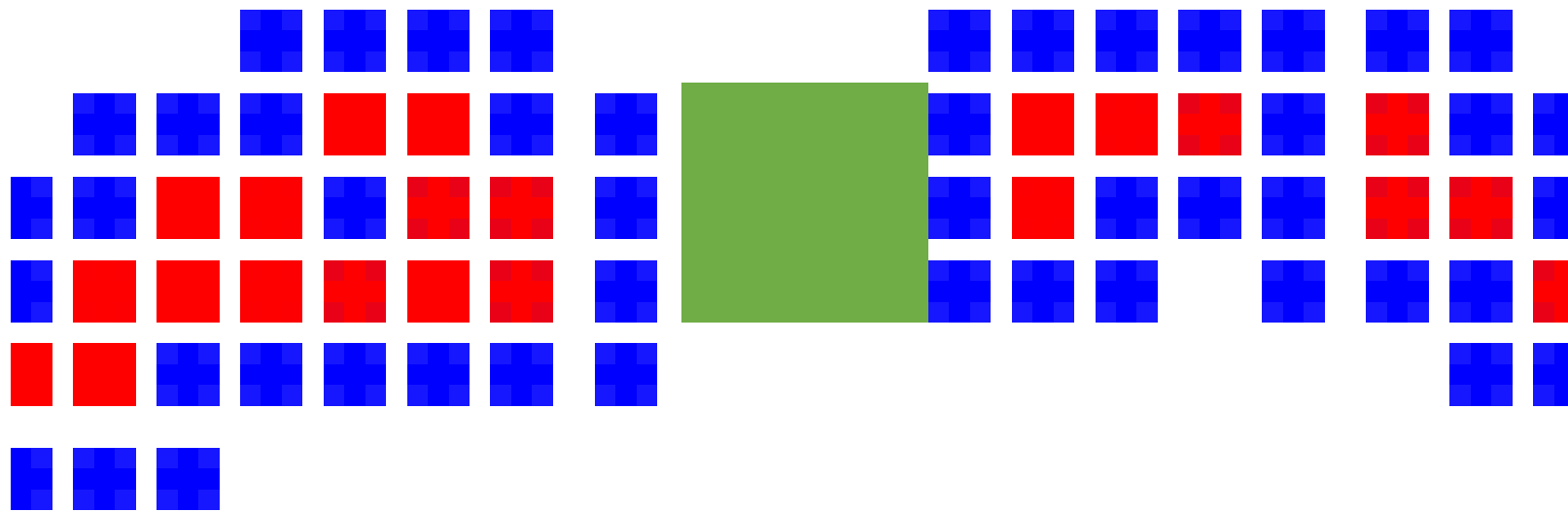
```
In [61]: plt.figure(figsize=(10,10))
plt.axis('equal')
plt.plot(*grid, 'bs', markersize = 2, label = 'grid set')
plt.plot(*grid_1, 'rs', markersize = 2, label = 'trajectory grid')
#plt.xlim(0, 743)
#plt.ylim(0, 734)
plt.legend()
plt.show()
```











Plot

