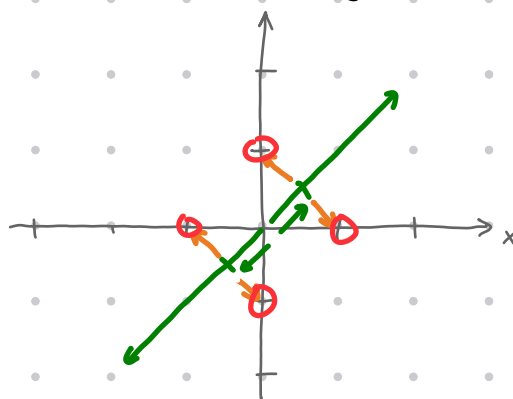
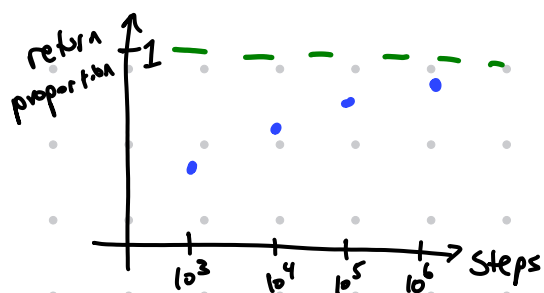


RANDOM WALKS

1D: Simple symmetric random walks are recurrent

2D: also recurrent, but it might take a long time to return to the origin



3D: Are these also recurrent? **NO**

3D simple symmetric random walks are transient:

they don't always return to the starting point

they don't visit every integer location