4.2 suppose a(t)=1+1/2+1/3+...+1/t, a(t) does not converges.

4.3 (a) 1/211(16,24,36,54,81) (b) (0,0,0,0,1)

4.6 Run a random work on 100-dimension cube, count the frequency that appears x1.

4.7 P(ii-ii)=1/2,P(corner to edge/center)=1/4,P(edge/center to corner)=1/8.

4.8 P(corner to corner)=1/6, P(corner to edge)=1/12, P(edge to corner)=1/6, P(edge to interior)=1/5, P(interior to edge)=1/20,

P(horizontally edge to edge)=1/12, P(interior to interior)=1/5, P(vertically edge to edge)=1/20.

P(corner to itself)=1/3, P(edge to itself)=3/10, P(interior to itself)=2/5.