L = rand(4, 1000);

disp(L(:,1:10))

0.8147 0.6324 0.9575 0.9572 0.4218 0.6557 0.6787 0.6555 0.2769 0.6948  
 0.9058 0.0975 0.9649 0.4854 0.9157 0.0357 0.7577 0.1712 0.0462 0.3171  
 0.1270 0.2785 0.1576 0.8003 0.7922 0.8491 0.7431 0.7060 0.0971 0.9502  
 0.9134 0.5469 0.9706 0.1419 0.9595 0.9340 0.3922 0.0318 0.8235 0.0344

A = getBinaryLine(L, 0.5, 0.7, 1);

disp(A(:,1:10))

0 1 0 0 0 1 1 1 0 1

B = getBinaryLine(L, 0.2, 0.6, 2);

disp(B(:,1:10))

0 0 0 1 0 0 0 0 0 1

C = getBinaryLine(L, 0.6, 0.9, 3);

disp(C(:,1:10))

0 0 0 1 1 1 1 1 0 0

A1 = getBinaryLine(L, 0.5, 0.7, 4);

disp(A1(:,1:10))

0 1 0 0 0 0 0 0 0 0

B1 = getBinaryLine(L, 0.2, 0.6, 4);

disp(B1(:,1:10))

0 1 0 0 0 0 1 0 0 0

C1 = getBinaryLine(L, 0.6, 0.9, 4);

disp(C1(:,1:10))

0 0 0 0 0 0 0 0 1 0

F = getFLine(A, B, C);

disp(F(:,1:10))

0 0 0 1 1 1 1 1 0 0

fregp(F, 1000)

ans =  
  
 0.5410

F1 = getFLine(A1, B1, C1);

disp(F1(:,1:10))

0 0 0 0 0 0 1 0 1 0

fregp(F1, 1000)

ans =  
  
 0.5800