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%
% A nonstationarity problem where the true action values start off equal and
% then follow individual random walks. We compare two methods
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% 1) estimating the action value using simple averages AND
% 2) estimating the action value using a constant geometric factor  $\alpha=0.1$ .
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% Inputs:
%   nB: the number of bandits
%   nA: the number of arms
%   nP: the number of plays (times we will pull a arm)
%   sigmaReward: the standard deviation of the return from each of the arms
%   sigmaRW: the standard deviation of the random walk
%
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% Please send comments and especially bug reports to the
% above email address.
%
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%close all;

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% My hypothesis is that as sigmaRW -> \infty alpha updating will perform better method
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%nB=2000; nA=10; nP=5000; sigmaReward=1.0; sigmaRW=1.0;
%exercise_2_7(nB,nA,nP,sigmaReward,sigmaRW);

%nB=2000; nA=10; nP=5000; sigmaReward=1.0; sigmaRW=10.0;
%exercise_2_7(nB,nA,nP,sigmaReward,sigmaRW);

nB=2000; nA=10; nP=5000; sigmaReward=1.0; sigmaRW=30.0;
exercise_2_7(nB,nA,nP,sigmaReward,sigmaRW);
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