

Intelligent Systems Assignment 1

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```
n = 100;
maxsteps = 200;
temp = [0.5, 0.2, 0.1, 0.05, 0.02, 0.01];
method = 1;

meanresults = zeros(size(temp));
standarddeviationresults = zeros(size(temp));

% Try the different temperatures
for index = 1:length(temp)
    results = tsp(n, maxsteps, temp(index), method);
    lastFifty = results(length(results) - 49:length(results));
    meanresults(index) = mean(lastFifty);
    standarddeviationresults(index) = sqrt(var(lastFifty));
    fprintf('mean: %f\n', mean(lastFifty));
    fprintf('variance: %f\n', var(lastFifty));
end

% Plot the results in a graph
figure(3); semilogx(0,0); hold on;
semilogx(temp, meanresults);
errorbar(temp, meanresults, standarddeviationresults)
title([ 'n =', num2str(n, '%d'), ' ... '
        'Steps =', num2str(maxsteps, '%d') ], ' ... '
        'fontsize', 16);
xlabel([ 'Temperatures' ], 'fontsize', 16);
ylabel([ 'Mean' ], 'fontsize', 16);
```