Homework 4
ECON 8 5 : Advanced Macroeconomics II
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The Tauchen Hussey discretization method.

The process for $y = log\,(income)$ is:

$$y \quad _1 = \mu + \rho y \ + \sigma \quad _1$$

where $N(0,1)$

1. Set $\mu = 0$, $\rho = 0.9$ and $\sigma = 0.0242$. Discretize the process for y with 9 points. Download the Matlab code ghguad.m to compute Gauss-Hermit grids and weights. Use 10,000 as maxit input. As an output, print out the vector of discretized y and the transition matrix.

2. Simulate the Markov chain and compute the implied autocorrelation coefficient ($\hat{\rho}$). Note: use 1 mln observations to simulate a persistent AR process. Disregard rst 1000 observations. Report both $\hat{\rho}$ and $\hat{\sigma}$ computed from the simulated data.