HW 5

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Question 1:

Value of the log-likelihood function is -1.2571.

Question 2:

Value of the log-likelihood function is -1.2693.

Question 3:

Gaussian Quadrature:

MLE estimates: gamma=-0.5056, beta0=2.4832, sigmabeta=1.4054. Maximized log-likelihood value is 536.2378. My starting value is 1, 1, 1.

Monte Carlo:

MLE estimates: gamma=-0.5077, beta0=2.6960, sigmabeta=1.1038. Maximized log-likelihood value is 536.1653. My starting value is 1, 1, 1.

Question 4:

MLE estimates: gamma=-0.6880, beta0=3.2376, u0=1.4560, sigmabeta=1.9060, sigmau=1.4498, sigmabetau=0.0060. Maximized log-likelihood value is 6.5618. My starting value is 1, 1, 1, 1, 1, 0.