Exercise 6

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1. (a) In the file `sp500.wf1`, compute the historical 1% VaR using `@quantile`. Note that this uses the entire sample, rather than the last m returns.

   (b) Determine the Normal VaR.

   (c) Determine the VaR based on a GARCH(1, 1) model with Normal innovations, and with standardized t innovations.

   (d) Make a plot with your VaR estimates overlaid on the negative log returns.

   (e) Test your VaR forecasts for correct unconditional coverage, independence, and correct conditional coverage.