

# PS8 - ECON 5253

Hannah Bermudez

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## 1 Q9 - Output

	(1)
X1	1.501
	(0.002)
X2	-1.001
	(0.002)
X3	-0.252
	(0.002)
X4	0.749
	(0.002)
X5	3.501
	(0.002)
X6	-2.001
	(0.002)
X7	0.499
	(0.002)
X8	1.003
	(0.002)
X9	1.247
	(0.002)
X10	2.001
	(0.002)
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Num.Obs.	100000
R2	0.991
R2 Adj.	0.991
AIC	145143.6
BIC	145248.3
Log.Lik.	-72560.811
RMSE	0.50

## 1.1 Q9 - Answer

The OLS estimates of  $\hat{\beta}$  obtained from the `lm()` function are very close to the true  $\beta$  values used to generate the data. This suggests that the closed-form and numerical optimization methods were implemented successfully.