

# PS8\_Dunkleberger

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## 1 Questions

The estimates for  $\hat{\beta}_{\text{OLS}}$  compared to the true values of  $\beta$  in (1) are nearly exact. There is some variance but that is to be expected when calculating things.

After computing with the two different algorithms, the answers are only slightly different from each other. The difference is insignificant and the results are the same as  $\beta$ .

## 2 Summary

The table below shows the computed  $\hat{\beta}_{\text{OLS}}$  using the `lm()` method. The estimates are very similar to the ground truth. They are almost exact!

	(1)
X1	1.501 (0.001)
X2	-1.000 (0.001)
X3	-0.251 (0.001)
X4	0.750 (0.001)
X5	3.500 (0.001)
X6	-2.000 (0.001)
X7	0.499 (0.001)
X8	1.001 (0.001)
X9	1.248 (0.001)
X10	2.001 (0.001)
Num.Obs.	$1 \times 10^5$
R2	0.998
R2 Adj.	0.998
AIC	6514.2
BIC	6618.8
Log.Lik.	-3246.093
RMSE	0.25