PS8 Hoehne

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1 Questions

- 5. The beta estimates were very close to the given betas in the problem.
- 7. There answers are nearly the exact same.
- 9. The numbers are nearly the exact same, the difference is very minimal. I think that we do not see large deviations from the data is it was manually created for the purpose of exploring the topic and idea, and that if we had an organic data set that our optimization functions would produce different and likely more informative results.

Table 1:

	$Dependent\ variable:$	
	Y	
X1	1.501***	
	(0.002)	
X2	-0.996***	
	(0.002)	
X3	0.251***	
	(0.002)	
X4	0.747***	
	(0.002)	
X5	3.502***	
	(0.002)	
X6	-1.999***	
	(0.002)	
X7	0.501***	
	(0.002)	
X8	0.999***	
	(0.002)	
X9	1.253***	
	(0.002)	
X10	1.999***	
	(0.002)	
Observations	100,000	
\mathbb{R}^2	0.991	
Adjusted R ²	0.991	
Residual Std. Error	0.500 (df = 99990)	
F Statistic	$1,080,206.000^{***} \text{ (df} = 10; 99990)$	
Note:	*p<0.1; **p<0.05; ***p<0.01	