

# PS8<sub>*Nongard*</sub>

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## 1 Introduction

5. OLS estimates using the closed-form solution are very, very close - they vary by only thousandths or ten-thousandths.

7. The L-BFGS and Nelder-Mead coefficients differ by ten-thousandths, so effectively no, they do not differ.

9. Table is on the next page. lm OLS estimates varied from "ground truth" by thousandths, if that. The model estimation is very accurate.

Table 1:

	<i>Dependent variable:</i>
	Y
X1	1.500*** (0.001)
X2	-0.998*** (0.001)
X3	-0.249*** (0.001)
X4	0.749*** (0.001)
X5	3.501*** (0.001)
X6	-2.000*** (0.001)
X7	0.501*** (0.001)
X8	0.999*** (0.001)
X9	1.251*** (0.001)
X10	2.000*** (0.001)
Observations	100,000
R <sup>2</sup>	0.998
Adjusted R <sup>2</sup>	0.998
Residual Std. Error	0.250 (df = 99990)
F Statistic	4,322,727.000*** (df = 10; 99990)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01