

**Table 9.9** Predicting a Car's Fuel Efficiency (Miles per Gallon) From Weight and Horsepower

Model Summary <sup>a</sup>									
Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	SE of the Estimate	Change Statistics				
					<i>R</i> <sup>2</sup> Change	<i>F</i> Change	<i>df</i> 1	<i>df</i> 2	Sig. <i>F</i> Change
1	0.822 <sup>b</sup>	0.675	0.674	4.459	0.675	404.583	2	389	.000
2	0.849 <sup>c</sup>	0.720	0.718	4.143	0.045	62.518	1	388	.000

<sup>a</sup>Dependent variable: MPG.

<sup>b</sup>Predictors: (constant), zWEIGHT, zHORSE.

<sup>c</sup>Predictors: (constant), zWEIGHT, zHORSE, INT.

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>p</i>	95% CI for B	
		<i>B</i>	<i>SE</i>	Beta			Lower Bound	Upper Bound
1	(Constant)	23.397	0.225		103.858	.000	22.954	23.840
	zWEIGHT	-4.286	0.437	-0.551	-9.818	.000	-5.144	-3.427
	zHORSE	-2.353	0.441	-0.299	-5.335	.000	-3.221	-1.486
2	(Constant)	21.814	0.290		75.316	.000	21.245	22.384
	zWEIGHT	-3.743	0.411	-0.481	-9.098	.000	-4.552	-2.934
	zHORSE	-4.099	0.466	-0.521	-8.805	.000	-5.015	-3.184
	INT	1.828	0.231	0.270	7.907	.000	1.374	2.283

<sup>a</sup>Dependent variable: MPG.

Coefficient Correlations <sup>a</sup>				
Model		zHORS E	zWEIGH T	INT3
2	Correlations	zHORSE	1.000	-0.823
		zWEIGHT	-0.823	1.000
		INT3	-0.474	1.000
	Covariances	zHORSE	0.217	-0.158
		zWEIGHT	-0.158	0.169
		INT3	-0.051	0.016

<sup>a</sup>Dependent variable: MPG.