

## Exercises: Module 6

Question 1 is based on the Witness data set.

- The following model predicts Perceived Accuracy from Memory, Honesty, Time Spent with Seniors at School, Sex of Witness, Age of Witness, and an interaction between Sex of Witness and Memory. Interpret the results.

<i>Between-Subjects Factors</i>			
		Value	
		Label	N
Witness's Sex	1	Male	113
	2	Female	103
The age of the witness	49		45
	69		59
	79		56
	89		56

### ANOVA

Dependent Variable: ACCURATE

Source	Type III				
	Sum of Squares	df	Mean Square	F	p
Model	105.784 <sup>a</sup>	8	13.223	17.535	.000
Memory Centered	61.376	1	61.376	81.388	.000
Honesty Centered	5.788	1	5.788	7.676	.006
Time Spent with Seniors at School	1.222	1	1.222	1.621	.204
Age of Witness	2.289	3	.763	1.012	.388
Sex of Witness	.084	1	.084	.111	.739
Sex of Witness*Memory Centered	.397	1	.397	.527	.469
Error	156.100	207	.754		
Total	261.884	215			

## Regression Coefficients

Dependent Variable: ACCURATE

Variable	B	se	t	p
Intercept	4.244	.157	27.092	.000
Memory Centered	.519	.080	6.468	.000
Honesty Centered	.204	.074	2.770	.006
Time Spent with Seniors at School	.029	.023	1.273	.204
Age49	-.306	.176	-1.742	.083
Age69	-.143	.163	-.877	.381
Age79	-.134	.165	-.812	.417
Sex of Witness	.040	.120	.333	.739
Sex of Witness * Memory Centered	.085	.118	.726	.469

Question 2 is based on the Birth data set.

- Run a model predicting birthweight (in pounds) from Infant's sex, smoking status (cig\_rec), mother's race, mother's weight gain, gestation, gestation squared, mother's age, and month prenatal care began (treat as numerical).

## Between-Subjects Factors

		Value Label	N
Infant Sex	1	Female	575
	2	Male	619
cig_rec	1	No	1105
	2	Yes	95
mrace	1	White	629
	2	Black	169
	3	Hispanic	296
	4	Other	106

## ANOVA

Dependent Variable: Birthweight in Pounds

Source	Type III Sum of Squares	df	Mean Square	F	p
Model	807.947 <sup>a</sup>	10	80.795	79.931	.000
Infant Sex	29.834	1	29.834	29.515	.000
Cigarette Recode Y/N	21.567	1	21.567	21.337	.000
Mother's Race	18.249	3	6.083	6.018	.000
Mother's Weight Gain	32.127	1	32.127	31.784	.000
Gestation Centered	242.101	1	242.101	239.513	.000
Gestation Centered Squared	37.266	1	37.266	36.868	.000
Mother's Age	12.505	1	12.505	12.372	.000
Month Prenatal Care Began	4.474	1	4.474	4.427	.036
Error	1201.846	1189	1.011		
Total	2009.793	1199			

## Regression Coefficients

Dependent Variable: Birthweight in Pounds

Variable	B	se	t	p
Intercept	5.842	.234	24.936	.000
Female Infant	-.318	.058	-5.433	.000
Male Infant	0 <sup>a</sup>	.	.	.
Cigarettes No	.511	.111	4.619	.000
Cigarettes Yes	0 <sup>a</sup>	.	.	.
White	.265	.107	2.490	.013
Black	-.072	.128	-.567	.571
Hispanic	.131	.115	1.140	.255
Other	0 <sup>a</sup>	.	.	.
Maternal Weight Gain	.011	.002	5.638	.000
Gestation Centered	.228	.015	15.476	.000
Gestation Centered Squared	-.009	.001	-6.072	.000
Mother's age	.018	.005	3.517	.000
Month Prenatal Care Began	.037	.017	2.10	.036

Interpret each of the coefficients.

