TABLE 3.1
HYPERACTIVE CHILDREN'S WISC-R SCORES

Full-Model Analysis

IQ Scores Y_i	Prediction Equations	Parameter Term $\hat{\mu}$	Error Scores $e_{i_F} = Y_i - \hat{\mu}$	Squared Errors $e_{i_F}^2$
96	$= \hat{\mu} + e_1$	104	-8	64
102	$= \hat{\mu} + e_2$	104	-2	4
104	$= \hat{\mu} + e_3$	104	0	0
104	$= \hat{\mu} + e_4$	104	0	0
108	$= \hat{\mu} + e_5$	104	$+4$	16
110	$= \hat{\mu} + e_6$	104	$+6$	36

$\sum = 624$
$\overline{Y} = 104$ 　　　　　　　　　　　　　　　　　　　　　$\sum = 0$ 　　　$E_F = 120$

Restricted-Model Analysis

IQ Scores Y_i	Prediction Equations	Parameter Term μ_0	Error Scores $e_{i_R} = Y_i - \mu_0$	Squared Errors $e_{i_R}^2$
96	$= \mu_0 + e_1$	98	-2	4
102	$= \mu_0 + e_2$	98	4	16
104	$= \mu_0 + e_3$	98	6	36
104	$= \mu_0 + e_4$	98	6	36
108	$= \mu_0 + e_5$	98	10	100
110	$= \mu_0 + e_6$	98	12	144

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$$F = \frac{(E_R - E_F/(df_R - df_F)}{E_F/df_F} = \frac{(366 - 120)/(6-5)}{120/5} = \frac{216}{24} = 9$$

$$t = \frac{\overline{Y} - \mu_0}{\hat{\sigma}_{\overline{Y}}} = \frac{\overline{Y} - \mu_0}{s/\sqrt{n}} = \frac{\overline{Y} - \mu_0}{\sqrt{\dfrac{\sum(Y - \overline{Y})^2}{n-1}}\Big/\sqrt{n}} = \frac{104 - 98}{\sqrt{\dfrac{120}{5}}\Big/\sqrt{6}} = \frac{6}{\sqrt{\dfrac{24}{6}}} = 3$$