ST518/590, Osborne

Coefficients for orthogonal polynomial contrasts

(Table D.6 from Oehlert's textbook)

		Coefficients					
t	Order	1	2	3	4	5	6
2	linear	-1	1				
3	linear	-1	0	1			
	quadratic	1	-2	1			
4	linear	-3	-1	1	3		
	quadratic	1	-1	-1	1		
	cubic	-1	3	-3	1		
5	linear	-2	-1	0	1	2	
	quadratic	2	-1	-2	-1	2	
	cubic	-1	2	0	-2	1	
	4^{th}	1	-4	6	-4	1	
6	linear	-5	-3	-1	1	3	5

The sums of squares for these contrasts, of the form $\widehat{\theta} = \sum c_i \overline{y}_i$, return regression sums of squares:

$$SS(\theta_o) = R(\beta_o | \beta_0, \ldots, \beta_{o-1})$$