

**19.6 ILLUSTRATIVE EXAMPLE OF TWO-FACTOR EXPERIMENT WITH REPEATED MEASUREMENTS**

The following are fictitious illustrative data for a repeated-measurement experiment with six experimental subjects tested under  $2 \times 3 = 6$  treatment combinations.

Subject 1			Subject 2						
	$C_1$	$C_2$	$C_3$		$C_1$	$C_2$	$C_3$		
$R_1$	4	5	7	16	$R_1$	6	8	10	24
$R_2$	1	4	2	7	$R_2$	3	6	6	15
	5	9	9			9	14	16	
Subject 3			Subject 4						
	$C_1$	$C_2$	$C_3$		$C_1$	$C_2$	$C_3$		
$R_1$	1	6	5	12	$R_1$	2	10	12	24
$R_2$	3	5	4	12	$R_2$	1	4	7	12
	4	11	9			3	14	19	
Subject 5			Subject 6						
	$C_1$	$C_2$	$C_3$		$C_1$	$C_2$	$C_3$		
$R_1$	5	10	10	25	$R_1$	1	7	8	16
$R_2$	5	6	5	16	$R_2$	2	8	7	17
	10	16	15			3	15	15	

For computational purposes it is necessary to write down the totals for rows by columns summed over subjects, rows by subjects summed over columns, and subjects by columns summed over rows. Viewing the data as a cube of numbers, these are the numbers on the surface of the cube. The totals for rows by columns summed over subjects,  $T_{rc}$ , are as follows:

	$T_{rc}$			
	Columns			$T_{r..}$
Rows	19	46	52	117
	15	33	31	79
$T_{c..}$	34	79	83	196 = $T_{...}$