TABLE 8.14-1 (continued)

(ii) Computational symbols:

$$\sum_{1}^{q}\sum_{1}^{r}\sum_{1}^{N} ABCS = 3 + 6 + 3 + \cdots + 11 = 172.000$$

$$\sum_{1}^{q}\sum_{1}^{r}\sum_{1}^{N} (ABCS)^2 = [ABCS] = (3)^2 + (6)^2 + \cdots + (11)^2 = 1160.000$$

$$\frac{\left(\sum_{1}^{q}\sum_{1}^{r}\sum_{1}^{N} ABCS\right)^2}{qrN} = [X] = \frac{(172)^2}{(2)(2)(8)} = 924.500$$

$$\sum_{1}^{N} \frac{\left(\sum_{1}^{q}\sum_{1}^{r} AS\right)^2}{qr} = [AS] = 110.25 + 182.25 + \cdots + 121.00 = 937.000$$

$$\sum_{1}^{p} \frac{\left(\sum_{1}^{q} A\right)^2}{nqr} = [A] = 517.5625 + 410.0625 = 927.625$$

$$\sum_{1}^{q} \frac{\left(\sum_{1}^{p} B\right)^2}{npr} = [B] = 156.25 + 930.25 = 1086.500$$

$$\sum_{1}^{p}\sum_{1}^{q} \frac{(AB)^2}{nr} = [AB] = \frac{(31)^2}{8} + \frac{(60)^2}{8} + \cdots + \frac{(62)^2}{8} = 1095.750$$

$$\sum_{1}^{p}\sum_{1}^{q}\sum_{1}^{n} \frac{(ABS)^2}{r} = [ABS] = \frac{(7)^2}{2} + \frac{(14)^2}{2} + \cdots + \frac{(17)^2}{2} = 1110.000$$

$$\sum_{1}^{r} \frac{\left(\sum_{1}^{p} C\right)^2}{npq} = [C] = 324 + 625 = 949.000$$

$$\sum_{1}^{p}\sum_{1}^{r} \frac{(AC)^2}{nq} = [AC] = \frac{(43)^2}{8} + \frac{(48)^2}{8} + \cdots + \frac{(52)^2}{8} = 962.250$$

$$\sum_{1}^{p}\sum_{1}^{r}\sum_{1}^{n} \frac{(ACS)^2}{q} = [ACS] = \frac{(10)^2}{2} + \frac{(11)^2}{2} + \cdots + \frac{(14)^2}{2} = 974.000$$

$$\sum_{1}^{q}\sum_{1}^{r} \frac{(BC)^2}{np} = [BC] = \frac{(22)^2}{8} + \frac{(28)^2}{8} + \cdots + \frac{(72)^2}{8} = 1119.000$$

$$\sum_{1}^{p}\sum_{1}^{q}\sum_{1}^{r} \frac{(ABC)^2}{n} = [ABC] = \frac{(15)^2}{4} + \frac{(16)^2}{4} + \cdots + \frac{(40)^2}{4} = 1141.500$$

(iii) Computational formulas:

$$SS_{total} = [ABCS] - [X] = 235.500$$

$$SS_{between\ subj} = [AS] - [X] = 12.500$$

$$SS_{A} = [A] - [X] = 3.125$$

$$SS_{subj\ w.groups} = [AS] - [A] = 9.375$$

$$SS_{within\ subj} = [ABCS] - [AS] = 223.000$$

$$SS_{B} = [B] - [X] = 162.000$$

$$SS_{AB} = [AB] - [A] - [B] + [X] = 6.125$$

$$SS_{B \times subj\ w.groups} = [ABS] - [AB] - [AS] + [A] = 4.875$$