### 11.29(14)
There are three blocks — 1, 2, 3 — and four treatments — A, B, C, D.

(a) Fill in the values which should follow the equals signs. Instead of giving checksums, some of the values have been calculated for you.

<table>
<thead>
<tr>
<th></th>
<th>treat A</th>
<th>treat B</th>
<th>treat C</th>
<th>treat D</th>
<th>$s_B =$</th>
<th>MSB =</th>
<th>$df_a =$</th>
<th>SSB =</th>
<th>$df_B =$</th>
<th>SSB =</th>
<th>$df_T =$</th>
<th>SST =</th>
</tr>
</thead>
<tbody>
<tr>
<td>block 1</td>
<td>6</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>B₁ =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>block 2</td>
<td>4</td>
<td>9</td>
<td>5</td>
<td>7</td>
<td>B₂ =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>block 3</td>
<td>12</td>
<td>15</td>
<td>14</td>
<td>14</td>
<td>B₃ =</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$s_{total} = 3.6794$  
$\text{TotSS} = 148.917$  
$k = b =$

(b)(3) Test for a difference in treatment means.

$$F = \ldots \ldots df_1 = \ldots df_2 = \ldots$$

Acceptance region for $F: [\ldots, \ldots]$  
Do at least two treatment means differ significantly? Why?

(c)(3) Test for a difference in block means.

$$F = \ldots \ldots df_1 = \ldots df_2 = \ldots$$

Acceptance region for $F: [\ldots, \ldots]$  
Do at least two block means differ significantly? Why?

### 11.31(11)
(a) Fill in the 5 missing values.

<table>
<thead>
<tr>
<th>$df_i =$</th>
<th>$SST =$</th>
<th>$MST =$</th>
<th>$df_s =$</th>
<th>SSE =</th>
<th>$MSE =$</th>
<th>$s =$</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>14.2</td>
<td></td>
<td>18.9</td>
<td></td>
<td></td>
<td>.667</td>
</tr>
</tbody>
</table>

(b)(3) Test for a difference in treatment means.

$$F = \ldots \ldots df_1 = \ldots df_2 = \ldots$$

Acceptance region for $F: [\ldots, \ldots]$  
Do at least two treatment means differ significantly? Why?

(c)(3) Test for a difference in block means.

$$F = \ldots \ldots df_1 = \ldots df_2 = \ldots$$

Acceptance region for $F: [\ldots, \ldots]$  
Do at least two block means differ significantly? Why?