The artifact frequency for an excavation of a Kiva in Bandelier National Monument gave the following information. Assume the random selection of frequencies below follow a normal distribution and that $\alpha = 0.05$.

<table>
<thead>
<tr>
<th>Stratum</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonflaked Stone Tools</td>
<td>3</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>Flaked Stone Tools</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>38</td>
</tr>
</tbody>
</table>

(a) [1] This data involves (circle one) paired samples / independent samples.

(b) [1] The observed value of the $t$ test statistic is ________________________________.

(c) [1] In a right–sided test, the critical value is ________________________________.

(d) [1] We are interested in testing whether or not the data here supports the claim there is a greater mean number of nonflaked stone tools than flaked stone tools. In this case, the p–value is ________________________________.

(e) [2] The null hypothesis, in this case, is the (circle one) population / sample mean number of nonflaked stone tools is (circle one) less than / equal to / greater than the population / sample mean number of flaked stone tools.
(a) [1] paired samples

(b) [1] 0.732 (use T–Test)

(c) [1] 2.015 (use INVT)

(d) [1] 0.249 (use T–Test)

(e) [2] population; equal to; population