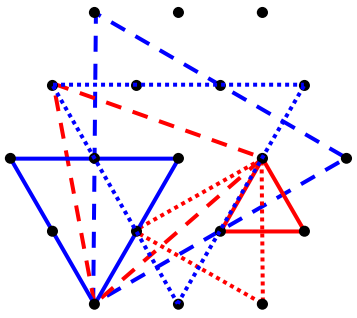
2014 EMIC Answers

Individual

1.	49	**2.**	7	**3.**	45	**4.**	6	**5.**	704
6.	5	**7.**	144	**8.**	15	**9.**	61	**10.**	43
11.	30	**12.**	2019	**13.**	30	**14.**	7.9	**15.**	75

Team

<table>
<tr><td>1.</td><td colspan="2">36</td><td>2.</td><td>(18, 7), (17, 8), (16, 9), (2, 14), (11, 5), (4, 12), (13, 3), (6, 10), (15, 1)</td></tr>
<tr><td>3.</td><td colspan="4">81</td></tr>
<tr><td>4.</td><td colspan="4">The 8 possible adoption schemes are as follows
<table>
<tr><th>1-year-old</th><th>2-year-od</th><th>3-year-od</th><th>4-year-od</th><th>6-year-od</th></tr>
<tr><td>Apartment 4</td><td>Apartment 2</td><td>Apartment 3</td><td>Apartment 12</td><td>Apartment 6</td></tr>
<tr><td>Apartment 2</td><td>Apartment 4</td><td>Apartment 3</td><td>Apartment 12</td><td>Apartment 6</td></tr>
<tr><td>Apartment 12</td><td>Apartment 2</td><td>Apartment 3</td><td>Apartment 4</td><td>Apartment 6</td></tr>
<tr><td>Apartment 2</td><td>Apartment 12</td><td>Apartment 3</td><td>Apartment 4</td><td>Apartment 6</td></tr>
<tr><td>Apartment 3</td><td>Apartment 2</td><td>Apartment 12</td><td>Apartment 4</td><td>Apartment 6</td></tr>
<tr><td>Apartment 6</td><td>Apartment 2</td><td>Apartment 3</td><td>Apartment 4</td><td>Apartment 12</td></tr>
<tr><td>Apartment 2</td><td>Apartment 6</td><td>Apartment 3</td><td>Apartment 4</td><td>Apartment 12</td></tr>
<tr><td>Apartment 3</td><td>Apartment 2</td><td>Apartment 6</td><td>Apartment 4</td><td>Apartment 12</td></tr>
</table></td></tr>
<tr><td>5.</td><td colspan="4">1001011</td></tr>
<tr><td>6.
(a)</td><td>6,
  </td><td>6.
(b)</td><td colspan="2">2 triangles whose side length is the largest. For each triangle of the next size, 2 such kind of triangles. In a triangle of the next size, their number is 12. There are 12 triangles of the next size. For each triangle of the next size, their number is 14. Finally, there are 24 triangles of the smallest size.</td></tr>
<tr><td>7.</td><td colspan="2">2</td><td>8.</td><td>8</td></tr>
<tr><td>9.</td><td colspan="2">95</td><td>10.</td><td>Divide the coins into four groups A, B, C and D. ……</td></tr>
</table>