Variable Dry Run Table Puzzles: Solutions

*Note only answers with completed dry run tables get any marks even if the answers are right!*

1.  
The final value of $x$ is: 7  
The final value of $y$ is: 7

2.  
The final value of $x$ is: 5  
The final value of $y$ is: 5

3.  
The final value of $x$ is: 5  
The final value of $y$ is: 5

4.  
The final value of red is: “yellow”  
The final value of blue is: “yellow”

5.  
The final value of $x$ is: 3  
The final value of $y$ is: 5

6.  
The final value of $x$ is: 1  
The final value of $y$ is: 1  
The final value of $z$ is: 3

7.  
The final value of one is: 3  
The final value of two is: 2  
The final value of three is: 2

8.  
The final value of $a$ is: 8  
The final value of $b$ is: 8  
The final value of $c$ is: 8

9.  
The final value of $a$ is: 2  
The final value of $b$ is: 2  
The final value of $c$ is: 1

10.  
The final value of $x$ is: 2  
The final value of $y$ is: 3  
The final value of $z$ is: 2
1. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

\[
\begin{array}{|c|c|}
\hline
x & y \\
\hline
5 & \\
\hline
7 & \\
\hline
\end{array}
\]

The final value of \( x \) is \( 7 \)  
The final value of \( y \) is \( 7 \)

2. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

\[
\begin{array}{|c|c|}
\hline
\text{X} & \text{Y} \\
\hline
5 & \\
\hline
7 & \\
\hline
\end{array}
\]

The final value of \( x \) is \( 5 \)  
The final value of \( y \) is \( 5 \)

3. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

\[
\begin{array}{|c|c|}
\hline
\text{Y} & \text{X} \\
\hline
7 & \\
\hline
5 & \\
\hline
\end{array}
\]

The final value of \( x \) is \( 5 \)  
The final value of \( y \) is \( 5 \)
4. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th>red</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>“red”</td>
<td>“yellow”</td>
</tr>
<tr>
<td>“yellow”</td>
<td></td>
</tr>
</tbody>
</table>

The final value of red is ___”yellow”____ The final value of blue is ___”yellow”_____

5. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th>y</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

The final value of x is ___3____ The final value of y is ___5_____

6. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The final value of x is ___1____ The final value of y is ___1____ The final value of z is ___3_____

Computer Science activities with a sense of fun:
Variable Dry Run Tables (for Python): V1 (31 May 2020)
By Paul Curzon
Teaching London Computing: http://teachinglondoncomputing.org
7. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th>one</th>
<th>two</th>
<th>three</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

The final value of one is ___3___
The final value of two is __2___
The final value of three is _2____

8. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

The final value of a is _8____ The final value of b is __8___ The final value of c is __8___
9. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The final value of a is __2__  The final value of b is _2____  The final value of c is __1___

10. Fill in the dry run table then state the final values stored in each variable after the code fragment has executed.

<table>
<thead>
<tr>
<th></th>
<th>x</th>
<th>y</th>
<th>z</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The final value of x is _2____  The final value of y is _3_____  The final value of z is ___2__