X2 is the parent and the most recent common ancestor of X3 and X4.

Probability distribution of X1

<table>
<thead>
<tr>
<th>X1</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>1</td>
<td>0.9</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Conditional probability distribution of X2 knowing X1

<table>
<thead>
<tr>
<th>X2</th>
<th>X1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

P(X3|X2)

<table>
<thead>
<tr>
<th>X2</th>
<th>X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.5</td>
</tr>
<tr>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>

P(X4|X2)

<table>
<thead>
<tr>
<th>X2</th>
<th>X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>1</td>
<td>0.9</td>
</tr>
</tbody>
</table>

X4 is a child of X2.

X1 is the common ancestor of X2, X3, and X4.