1. Find the value of this game and the strategies for the two players that will produce this value as the outcome.

\[
\begin{array}{c|cc}
 & B & \\
\hline
A & 1 & -1 \\
 & -4 & 3 \\
\end{array}
\]

2. A famous example of a two by two matrix game is from the Second World War. The allies used airplanes to hunt German submarines, and part way through the war, the allies started to use radar to locate the submarines. The Germans then deployed radar detectors, which could detect the radar from over the horizon, allowing the submarines to take evasive action before being spotted; however, using the detectors required the subs to be close to the surface, more vulnerable to visual detection by an airplane with the radar turned off. Thus each of two players, a plane and a submarine, have two strategies: the plane can turn radar on or off, the sub can use the radar detector or can lie deep underwater. Assigning realistic values for the payoffs is a practical and difficult problem.

Find the value of the North Atlantic Game shown below, and the strategies for the two players that will produce this value as the outcome.

<table>
<thead>
<tr>
<th></th>
<th>Visual</th>
<th>Radar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lie Deep</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>Radar Detector</td>
<td>0.6</td>
<td>0.2</td>
</tr>
</tbody>
</table>