1. Find all the pure and mixed strategy equilibria of the following games by constructing the best response correspondences of the players:

   (a) Matching Pennies:
   
   \[
   \begin{pmatrix}
   H & T \\
   H & 1, -1 & -1, 1 \\
   T & -1, 1 & 1, -1 \\
   \end{pmatrix}
   \]

   (b) Hawk-Dove:
   
   \[
   \begin{pmatrix}
   H & D \\
   H & 0, 0 & 6, 1 \\
   D & 1, 6 & 3, 3 \\
   \end{pmatrix}
   \]

2. (A Coordination Game). Two people can perform a task if, and only if, they both work. The cost of effort is \(0 < c < 1\), and if the task is performed their payoff is 1 each. This results in the following bimatrix representation, where \(W\) stands for working, and \(S\) stands for shirking.

   \[
   \begin{pmatrix}
   S & W \\
   S & 0, 0 & 0, -c \\
   W & -c, 0 & 1 - c, 1 - c \\
   \end{pmatrix}
   \]

   Find all the Nash equilibria of this game (both pure and mixed strategy equilibria). How does the mixed strategy equilibrium change as \(c\) increases?