This assignment consists of **bonus questions only**. There will be no points lost by not handing it in. Any bonus points gained will be added to those of the assignment with the second lowest grade.

Collaboration on homework is encouraged, but individually written solutions are required. Also, please name all collaborators and sources of information on each assignment; any such named source may be used.

1. **5 points.** Let $A = \{a, b\}$ and $n = 9$. Find a neutral and egalitarian constitution $\varphi: P^m_A \rightarrow P_A$ that is not anonymous.

2. **10 points.** Let $A = \{a, b\}$ and $n = 6$. Find a neutral and egalitarian constitution $\varphi: P^m_A \rightarrow P_A$.

3. **10 points.** Let $A = \{a, b, c\}$ and $n = 5$. Find a neutral and egalitarian constitution $\varphi: P^m_A \rightarrow P_A$.  

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