Consider the sets $A_0 := \{0, 1, 4\}$, $B_0 := \{0, 2, 8\}$. Consider the sets $A_i := A_0 + i := \{i, i + 1, i + 4\}$, and $B_i := B_0 + i := \{i, i + 2, i + 8\}$, for $i = 1, 2, \ldots, 12$. All addition here is performed modulo 13. Consider the bipartite graph G whose vertices are the sets $A := \{A_i : 0 \leq i \leq 12\}$ and $B := \{B_i : 0 \leq i \leq 12\}$ (so that the graph has a total of 26 vertices) and vertices corresponding to two different sets A_i, B_j are adjacent in the graph G if and only if $A_i \cap B_j = \varnothing$.

1. Check that this bipartite graph is regular.
2. The regularity of the graph implies that the edges of G can be partitioned into edge disjoint perfect matchings. Give one such partition.