C-12.24

1. If $M^2(i,j) = 1$, then there is a path of length $<= 2$ (a path traversing at most 2 edges) from vertex i to vertex j in the graph G. Alternatively, if $M^2(i,j) = 0$, then there is no such path.
2. Similarly, if $M^4(i,j) = 1$, then there exists a path of length $<= 4$ from v_i to v_j, otherwise no such path exists. The situation with M^5 is analogous to that of M^4 and M^2. In general, M^p gives us all the vertex pairs of G which are connected by paths of length $<= p$.