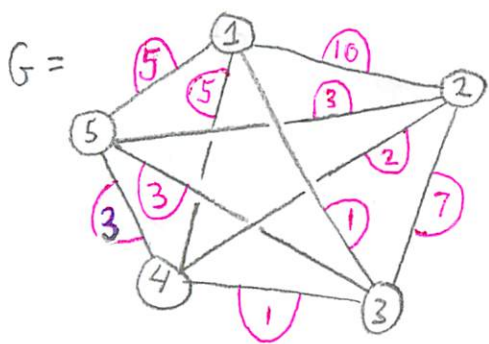


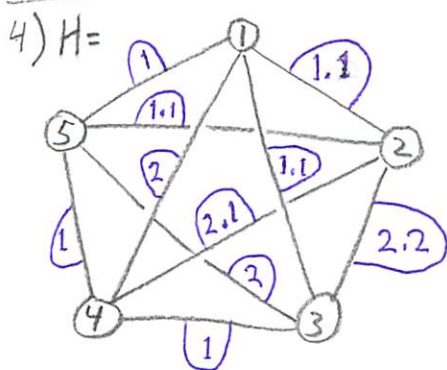
HW1. STSP: Given the following weighted graph ( $K_5$ ):



In  $K_5$ ,  
 1) How many Hamiltonian cycles are there, up to the symmetries: "rotate starting node" and "reverse order"?

2) Translate this graph  $G$  to a metric version,  $G'$ .

3) Start at node 1 <sup>of  $G'$</sup>  and use the greedy algorithm to find a solution to the STSP. (Give the cycle & total weight.)  
 Which walk on  $G$  does your solution correspond to?



Start at node 1 of  $H$ , (already metric) and use the greedy algorithm to solve STSP.

Find a better route!