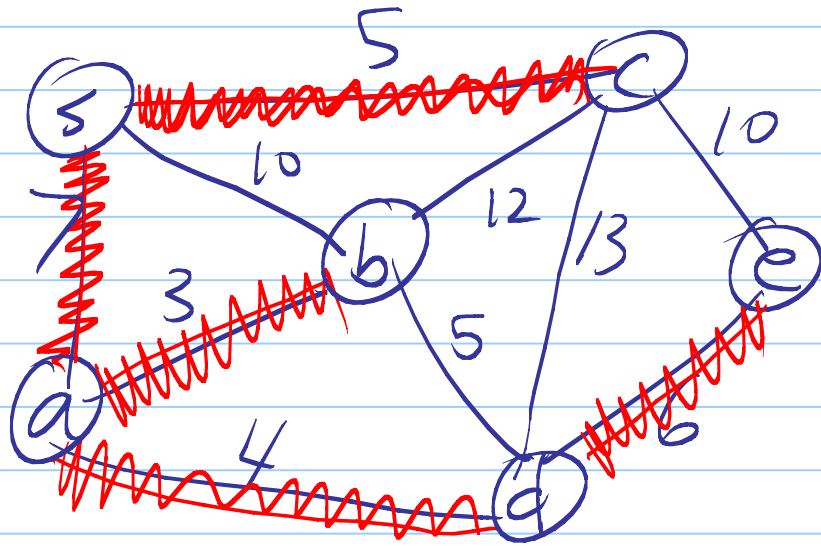


Prim's Minimum Spanning Tree Alg

Greedy Tree Builder where
semantics of tag is minimum
weight edge connecting vertex to T

s seed
(arbitrary)



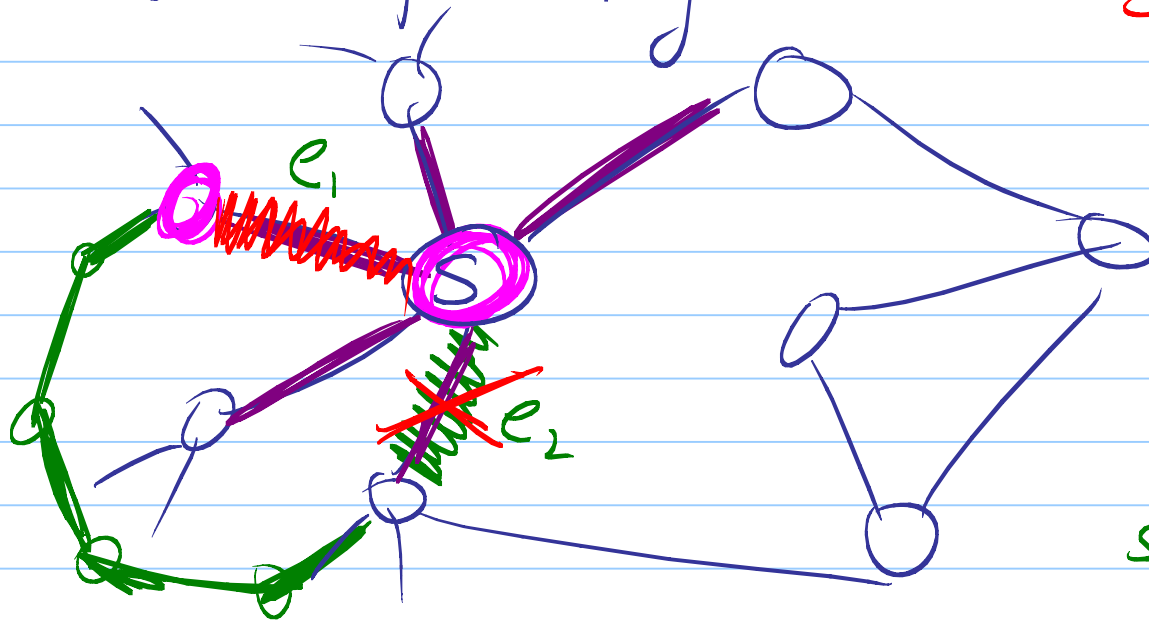
Correctness Proof

min weight
edge
adjacent
to

Key fact: Prove that the first edge S placed in T is part of some minimum spanning tree.

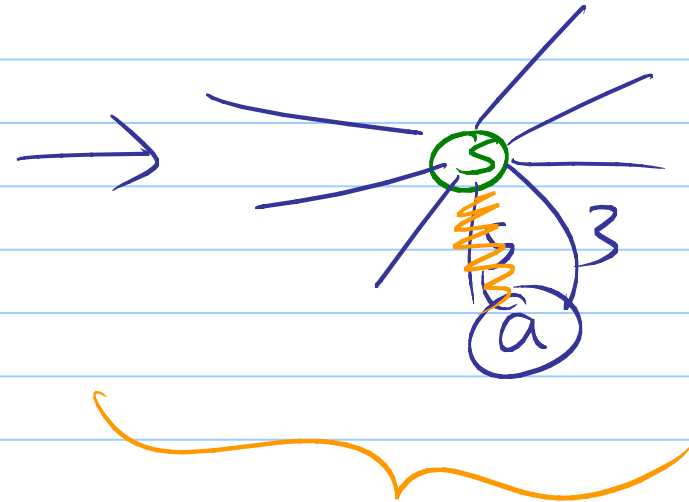
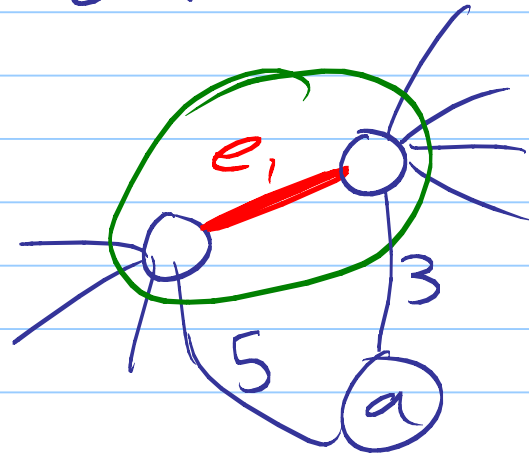
Suppose
not!

Let T
be a
minimum
spanning
tree



T remove
 e_2 + add
 e_1 , we
have a minimum
spanning tree

Graph contraction



Problem is reduced to finding a minimum spanning tree in this graph with 1 less vertex