Subject: Graphs, question #27
Posted by oatazic on Mon, 27 Mar 2017 17:08:23 GMT

I looked at the Google Doc and tried to figure it out, but can someone provide an explanation for the answer on this one?

Thanks!

Subject: Re: Graphs, question #27
Posted by SSinisco on Tue, 28 Mar 2017 00:06:54 GMT

So in an implementation with a binomial heap (which is what I'm assuming is used here), Prims makes V extract-min operations, which each take log V time. Then for each vertex it extracts, a call to decrease-key (also takes log V time) could be made for each of its edges. Hence decrease-key is called O(E) times altogether.

we could not make such a substitution)

(V)