Is it possible to use the linear selection algorithm on an even number of groups? Is it also possible to use the linear selection algorithm on a group with even number in each group?

For example, how would I solve this problem?

Quote: Consider running the linear selection algorithm on an array of n unique elements. What is a tight lower bound on the number of elements less than the median of medians? Assume the median of medians is found with groups of SIX and that there are an EVEN number of groups.

Subject: Re: Even numbers using the linear selection algorithm
Posted by SSinischo on Mon, 27 Mar 2017 23:50:36 GMT

Someone correct me if I'm wrong, but if we have groups with an even number of objects, we can't find a median without interpolation... which doesn't work here. Same with number of groups. We can run the linear selection algorithm with an even number of groups, but I don't think we can find a tight upper/lower bound without subtracting or adding a group.

-
However since you make that assumption, would it be correct to say that this calculation is not a tight bound?

Subject: Re: Even numbers using the linear selection algorithm
Posted by lusth on Fri, 31 Mar 2017 13:33:11 GMT

View Forum Message <> Reply to Message

It would still be tight.