

$J_r > K_r, (1,2) > (2,1)$

If J_r dominates K_r we can avoid traversing and adding K_r 's children nodes since J_r will always be optimal to K_r .

As J_r expands into a large partial sequence such as $(1,2,3) > (3,2,1)$ we can test it's dominance to a greater number of promising nodes within the tree and thereby reducing the nodes we would have to create by not using this method to exclude them.

This is similar to how we use the upper bound to exclude any possible solution that exceeds the arbitrary benchmark we set.