AI Planning for Autonomy

Solution Problem Set V: Delete Relaxation

1.

- If computed with respect to each food it's roughly a Minimum Spanning Tree (techincally a Steiner Tree, since paths can branch in non-food location, i.e. the Steiner Points)
- Shortest path to eat the hardest m food points
- Equivalent, look at slides
- $h_{max} << h^+ << h^*$, $h_{max} << h^+ << h_{add}$. << stands for dominance. h^* dominates admissible heuristics, that's why it doesn't dominate h_{add} .

2.

- Compute $h^{add}(s_0)$ for this blocks-world problem. $h^{add}(s_0) = 5$. For computation, see below.
- Compute $h^{max}(s_0)$ for this blocks-world problem. $h^{max}(s_0) = 2$. For computation, see below.

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Iteration	d(A)	[cl(B)	(l(c)	OnTalle (A)	ontable (B)	on table (c)	On (A,C)	on (A,B),	, on (13, C)	$\int_{a}^{b} h(A)$	h(0).	h(c)	AmFree	
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1	0	0	1	<i>∞</i>	O	0	0	0	8	1	1	<i>∞</i>	0	
2	0	0	1	2	0	0	0	2	2					
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The table for h_{add} changes only the value for on(B,C) to 3, hence h value of the Goal is 5.