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Hw 19

1.

Reduced cost matrix			
∞	5	7	9
5	3	8	11
7	8	3	10
9	11	10	0
11	0	3	-
0	3	-	-
10	0	2	-
0	0	0	1

Lower bound:
 $3+3+5+3+1 = \boxed{15}$

- 2.9.3)
- a set of subsets that is a partial solution to the Set Cover problem
 - which new set has the most ~~unique~~ elements that are unique will be expanded
 - all remaining subsets will be numbered as to how many unique elements they contain, and the one with the most will be chosen to expand the subproblem
 - The minimum number of sets that we can feasibly put in a set to cover all elements, whether or not that is possible.

I think this will work for typical instances of the problem because it enumerates the choices based on unique elements, which could be anything, so the algorithm is fairly universal.