

# Homework 6 Solutions

## Problem 1:

Leaving out Marquette University, the routes are through Level 3 Communications, a Tier 1 network, Cogent Communications, also a Tier 1, Cyrus One and Unified Layer, all ISP.

## Problem 2:

## Problem 3:

B merges the old and the new information.

For A, there is only one entry, so this one stays.

For B, the current entry is best, so it stays.

For C, the current and the new entry are the same.

For D: The current entry offers a route of costs 15, but the new one offers a route of  $3+6=11$  costs.

For E: The current entry offers a route of costs 22, but the new one offers a route of  $3+3=6$ .

For F: There is only the new entry.

Whenever a new entry is chosen, the next field is updated to C.

Node	Cost	Next
A	2	A
B	0	-
C	3	C
D	9	C
E	5	C
F	6	C