Argument:

For P3:

Maybe my answer is slightly different from the “right answer” that you give, but that doesn’t mean my answer is wrong. Please check my answer sincerely. You can see that in the step2, there are three possible choices, y,w,u. I chose y, but you chose u, that is basically the same answer!

For P4:

I just copy some comments from you:

If c(x,w) = δ > 6, then the least cost path now passes through y and has cost 11; again x will inform its neighbors of this new cost.

Well, that means my answer for P4(b) is right.

Any change in link cost c(x,y) (and as long as c(x,y) >=1) will not cause x to inform its

neighbors of a new minimum-cost path to u .

Well, that means my answer for P4(c) is right.

Hey, man, I am very confused…

P3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| step | N’ | D(z),p(z) | D(y),p(y) | D(w),p(w) | D(v),p(v) | D(t),p(t) | D(u),p(u) |
| 0 | x | 8,x | 6,x | 6,x | 3,x | ∞ | ∞ |
| 1 | x,v | 8,x | 6,x | 6,x | ~ | 7,v | 6,v |
| 2 | x,v,y | 8,x | ~ | 6,x | ~ | 7,v | 6,v |
| 3 | x,v,y,w | 8,x | ~ | ~ | ~ | 7,v | 6,v |
| 4 | x,v,y,w,u | 8,x | ~ | ~ | ~ | 7,v | ~ |
| 5 | X,v,y,w,u,t | 8,x | ~ | ~ | ~ | ~ | ~ |
| 6 | X,v,y,w,u,t,z | ~ | ~ | ~ | ~ | ~ | ~ |

P7.

1. [ Dx(x), Dx(w), Dx(y),Dx(u)] = [0, 2, 4, 7]
2. Change x-w from 2 to 10.

First, the Distance vector in node X would be changed to [0,7,5,11]. Then node x will inform this distance vector to node w and y.

1. Change x-y from 5 to 10.

Because this change will not update the distance vector in node X. X will not inform w, y this change.