EECS 325: Assignment 4

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EECS 325, Dr. WANG

Question 1

(a)

The second best path from E to F is $E \to D \to F$.

(b)

E's advertised distance to F is 6.

Route	After E's update (distance, next-hop)
A to F	5, D
B to F	5, C
D to F	3, F

(c)

B's advertised distance to F is 6.

Route	After B's update (distance, next-hop)
A to F	5, D
C to F	5, F
E to F	6, D/F

(d)

C's advertised distance to F is 5.

Route	After C's update (distance, next-hop)
B to F	6, C

Now all routers are following the correct shortest path, as in the next iteration (4th) the table will not update anymore.

(e)

(1) 1st iteration, update E to F as $6, F$.

(2) 2nd iteration, fill in A to F, B to F, update C to F as $5, F$, update E to F as $6, D/F$.

(3) 3rd iteration, update B to F as $6, C$.

(4) 4th iteration, no more update.

Thus the tables will **NOT** converge faster with *poisoned reverse*, as either implemented or not, both approaches took 4 iterations to converge.

Question 2

(a) `eBGP`, 4c tells.

(b) `iBGP`, 3b tells.

(c) `eBGP`, 3a tells.

(d) `iBGP`, 1a or 1b tells.

(i) `A, A-C, A-C-F, A-D, A-D-G`

(ii) `C, C-F`

(iii) `E`

(iv) `F`