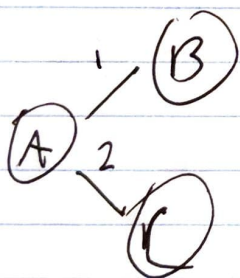


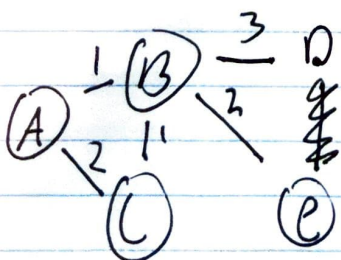
A Start: A pop(A) mark(A)  
 B C push(B) mark(B), push(C) mark(C)  
 D E pop(B) push(D) push(E) mark(D) mark(E)  
 D E pop(C) ~~push(E)~~ ~~mark(E)~~  
 E F pop(D) push(F) mark(F)  
 F pop(F)

(F) = first in queue

There exists a path



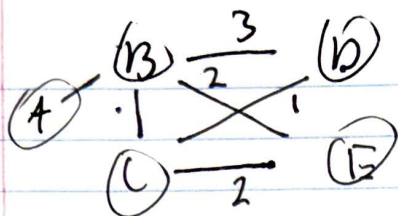
$\{A, \infty, \infty, \infty, \infty, \infty\}$   
 $\{A\}$  path



$\{0, 1, 2, \infty, \infty, \infty\}$   
 $\{A, B, C\}$

we saw b had distance of 1, & c had distance of 2, so bpt  $\rightarrow$  B had to be directly to it.

Next we see from b  $\rightarrow$  c = 1, a  $\rightarrow$  b  $\rightarrow$  c = 2,  $\Rightarrow$  a  $\rightarrow$  c. so we use A  $\rightarrow$  B  $\rightarrow$  C

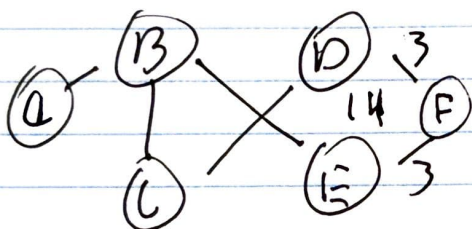


$B \rightarrow D$     $B \rightarrow E$   
 $\{ \infty, 3, \infty, \infty, \infty \}$   
 $\{ A, B, C \}$

Now we compare

$B \rightarrow D$     $B \rightarrow E$  with  
 $C \rightarrow D$  ,    $C \rightarrow E$   
 $= 3$     $= 4$

$\therefore B \rightarrow C \rightarrow D$  &  $B \rightarrow E$



we then verify,  $D \rightarrow E$  is not any faster

$D \rightarrow E$     $E \rightarrow D$     $D \rightarrow F$   
 $\{ 3, 3, 3 \}$

$\{ A, B, C, D, E \}$

Then we choose D, Although either work since both are 6

