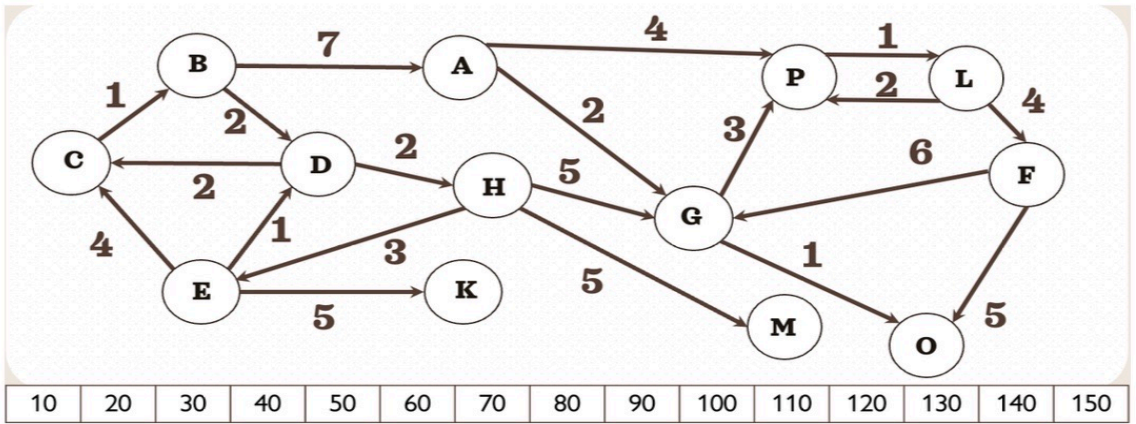


2)  $f = g + h$   
 $g$  = cost from start to node  
 $h$  =  $n$  to end



$E \rightarrow D, K, C$

$g=0$

$h = 150 - 30 = 120$

$f = 120$

$D: g = 1, h = 150 - 40 = 110, f = 111$

$C: g = 4, h = 150 - 10 = 140, f = 144$

$\star K: g = 5, h = 150 - 60 = 90, f = 95$

$K \rightarrow H$

$\star H: g = 8, h = 100, f = 108$

$D \rightarrow B, C, H$

$B: g = 3, h = 130, f = 133$

$C: g = 3, h = 140, f = 143$

$\star H: g = 3, h = 100, f = 103$

$H \rightarrow A, G$

$A: g = 5, h = 80, f = 85$

$\star G: g = 8, h = 60, f = 68$

$G \rightarrow F, L, P, M$

$F: g = 14, h = 10, f = 24$

$L: g = 10, h = 0, f = 10$

$P: g = 11, h = 50, f = 61$

$M: g = 9, h = 40, f = 49$

Cost!

1  $E \rightarrow D$

2  $D \rightarrow H$

5  $H \rightarrow G$

2  $G \rightarrow L$

10

$E \rightarrow D \rightarrow H \rightarrow G \rightarrow L$

cost = 10

3)  $\star$  because it prioritizes nodes geographically closer to target which results in shorter path.