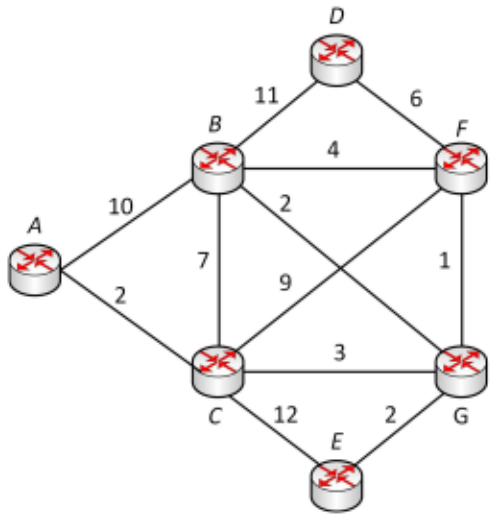
Problem 13 [14 Points]: Consider the following network. With the indicated link costs, use Dijkstra's shortest-path algorithm to compute the shortest path from A to all network nodes. Show how the algorithm works by computing the table below.



Step	N'	$D(B), p(B)$	$D(C), p(C)$	$D(D), p(D)$	$D(E), p(E)$	$D(F), p(F)$	$D(G), p(G)$
1	A	10 A	2 A	∞	∞	∞	∞
2	AC	9C	∞	∞	14C	11C	5C
3	ACG	7G	∞	∞	7G	6G	
4	ACGF	. . .					
5							
6							
7							

Problem 14 [15 Points]: Consider three nodes, A, B, and C, that use slotted ALOHA protocol to contend for a broadcast channel. Suppose that the retransmission probabilities of node A, B, and C, are 0.1, 0.2, and 0.3, respectively. What are the probabilities of a slot being idle, successful, and collision, respectively?