Problem 10 [10 Points]: Consider sending a 2400-byte datagram into a link that has an MTU of 700 bytes. Suppose that the original datagram is stamped with the identification number 228. How many segments are generated? What are the values in the length, ID, fragment flag, and fragment offset in each fragment? (Assume 20 bytes of IP header)

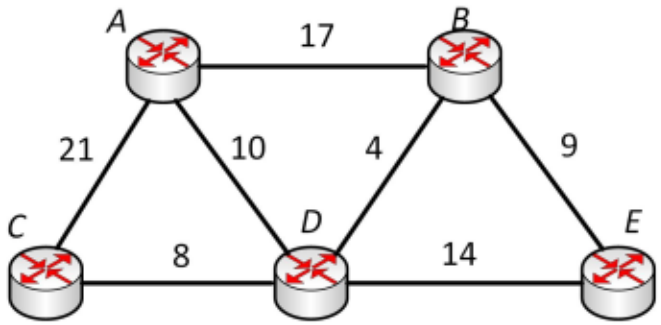
$$\text{fragments} = \frac{2400-20}{700-20} = 4$$

fragment #	size	ID	offset	flag
1	680	228	0	1
2	680	228	85	1
3	680	228	85	1
4	340	228	255	0

Problem 11 [15 Points]: Consider the following network with the indicated link costs that runs a distance vector protocol. At the beginning, every node only knows the link cost to its direct neighbor. For example, the initial routing table at node A is

Destination	Cost	Next Hop
B	17	B
C	21	C
D	10	D
E	∞	-

Answer the following questions.



- (a) Show the initial routing table of node E.

Destination	Cost	Next Hop
A	—	—
B	9	B
C	—	—
D	14	D