Chapter 3

Problem 36

On the first network, the first 1004 data bytes will transmitted along with a 20 byte header and an offset of 0 for the first message. For the second message, the remaining 20 data bytes, along with a 20 byte header will be transmitted. The offset for this message will be 1004.

On the second network, the first 556 data bytes with be transmitted along with the 20 byte header and an offset of 0. A second message, containing the remaining 468 bytes along with a 20 byte header and an offset of 556.

Problem 46

Part a

Information at node	Distance to reach node					
	A	B	C	D	E	F
A	0	∞	3	8	∞	∞
B	∞	0	∞	∞	2	∞
C	3	∞	0	∞	1	6
D	8	∞	∞	0	2	∞
E	∞	2	1	2	0	∞
F	∞	∞	6	∞	∞	0

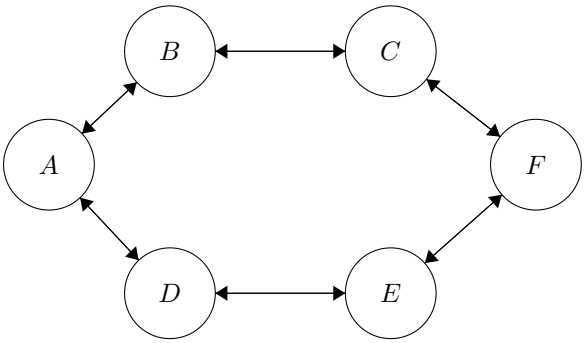
Part b

Information at node	Distance to reach node					
	A	B	C	D	E	F
A	0	∞	3	8	10	9
B	∞	0	3	4	2	∞
C	3	3	0	3	1	6
D	8	4	3	0	2	∞
E	10	2	1	2	0	7
F	9	∞	6	∞	7	0

Part c

Information at node	Distance to reach node					
	A	B	C	D	E	F
A	0	6	3	8	10	9
B	6	0	3	4	2	9
C	3	3	0	3	1	6
D	8	4	3	0	2	9
E	10	2	1	2	0	7
F	9	9	6	9	7	0

Problem 52



Problem 55

Part a

This packet will be directly delivered over **interface 0**.

Part b

This packet will be forwarded to **R2**.

Part c

This packet will be forwarded to **R4**

Part d

This packet will be forwarded to **R3**

Part e

This packet will be forwarded to **R4**

Problem 64

Part a

This could happen if A's message was sent before the A-B link was restored or if B's message was sent before the A-B link was severed.

Part b

C should assume that the A-B link is down until it receives another message from A saying that the link has been restored.