

CIS2460A2

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1.

- a) S3 should begin sending at $t = 1 \text{ mus}$
- b) S1 should begin sending at $t = 5.3 \text{ mus}$
- c) S3 should finish delivering the first 72 bytes of F1 at 52.2 mus
- d) S1 should finish delivering the first 72 bytes of F2 at 56.5 mus
- e) S3 will detect a collision and prepare to back off at 15.5 mus
- f) S1 will detect a collision and prepare to back off at 11.2 mus

2. The average interarrival time is $\sim 465.5 \text{ mus}$.

3.

- a) 24 frames can be sent in 100 slot times
- b) Frames in the range $\{72, 73, \dots, 1526\}$ will have an average size of ~ 800 bytes, and at 36 bytes per slot time, about 4 frames can be expected to make it through.
- c) No, as an interarrival time of 0 will rarely happen. A random interarrival time will almost always be >0 , slowing down the throughput of the sender.