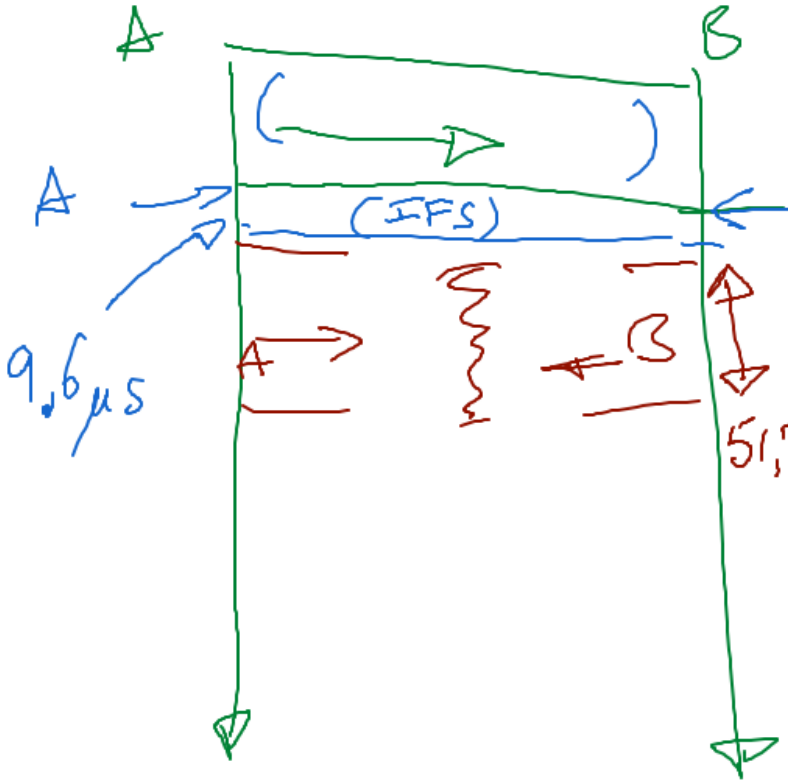


CSMA/CD

B A and B are backlogged.

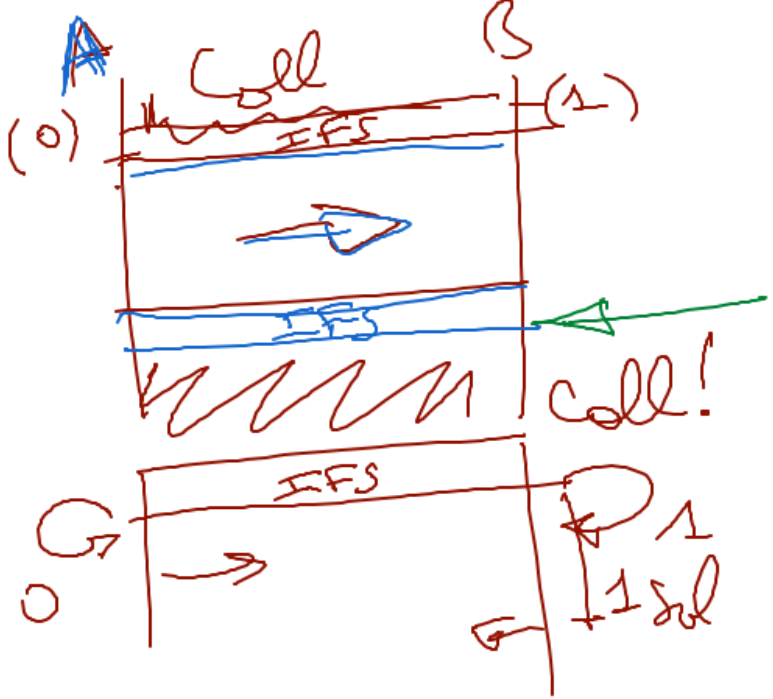
1°) what happens now?

at most !!

2°) what happens next?

3°) ~~Next?~~ A wins - what next?

1. Collision
2. A and B wait 0 or 1 slot
   - (50% collision)
   - 25% A wins
   - 25% B wins -



what happens?

$\rightarrow CW_A = 2$

$\rightarrow CW_B = 4$

$P[B] = P[A \text{ picks } 1 \text{ and } B \text{ picks } 0]$ (1/2 · 1/4 = 1/8)

~~$P[A_1] =$~~

$P[coll] = P[A \text{ picks } 0 \text{ and } B \text{ picks } 0] + P[\text{“1 and 1”}]$

$= 2/8 + P[\text{“1 and 1”}]$

CSMA/CD =

- ~~listen until channel free~~
- Send
  - ↳ ok
  - ↳ wait random time

$$P[A] = 1 - P[S] - P[coll]$$

After N collisions

$$P[S] = \frac{1}{2^{N+1}}$$

$$P[A] = 1 - \frac{3}{2^{N+1}} \leftarrow N \to$$

B will lose forever ---- $\Rightarrow$ 16 times !!