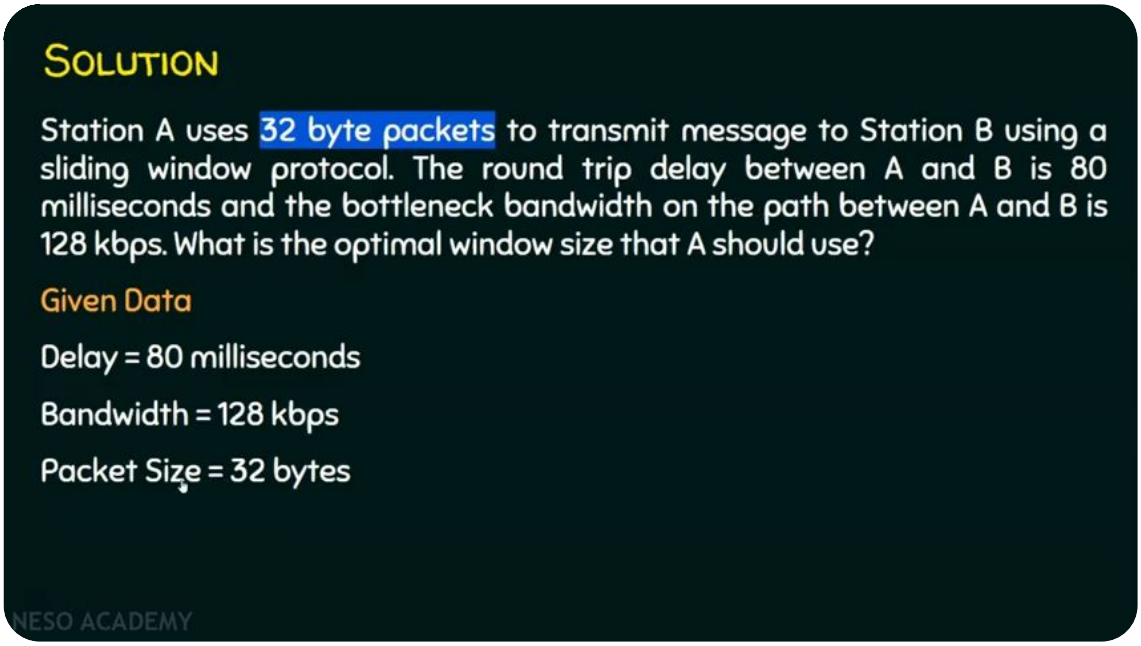
01:21



01:39

03:19

SOLUTION

Bandwidth – Delay Product = Bandwidth x Delay

Bandwidth – Delay Product = 128 kbps x 80 milliseconds

Bandwidth – Delay Product = $128 \times 1024 \times 80$ milliseconds

Bandwidth – Delay Product = $128 \times 1024 \times 80 \times 10^{-3}$ bits

$$\text{Bandwidth – Delay Product} = \frac{128 \times 1024 \times 80 \times 10^{-3}}{8} \text{ bytes}$$

$$\text{Optimal Window Size} = \frac{128 \times 1024 \times 80 \times 10^{-3}}{8 \times 32} \text{ bytes}$$

Optimal Window Size = 40

03:27

SOLUTION

Station A uses 32 byte packets to transmit message to Station B using a sliding window protocol. The round trip delay between A and B is 80 milliseconds and the bottleneck bandwidth on the path between A and B is 128 kbps. What is the optimal window size that A should use?

(A) 20

(B) 40 ✓

(C) 160

(D) 320