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# COMP90007 Internet Technologies

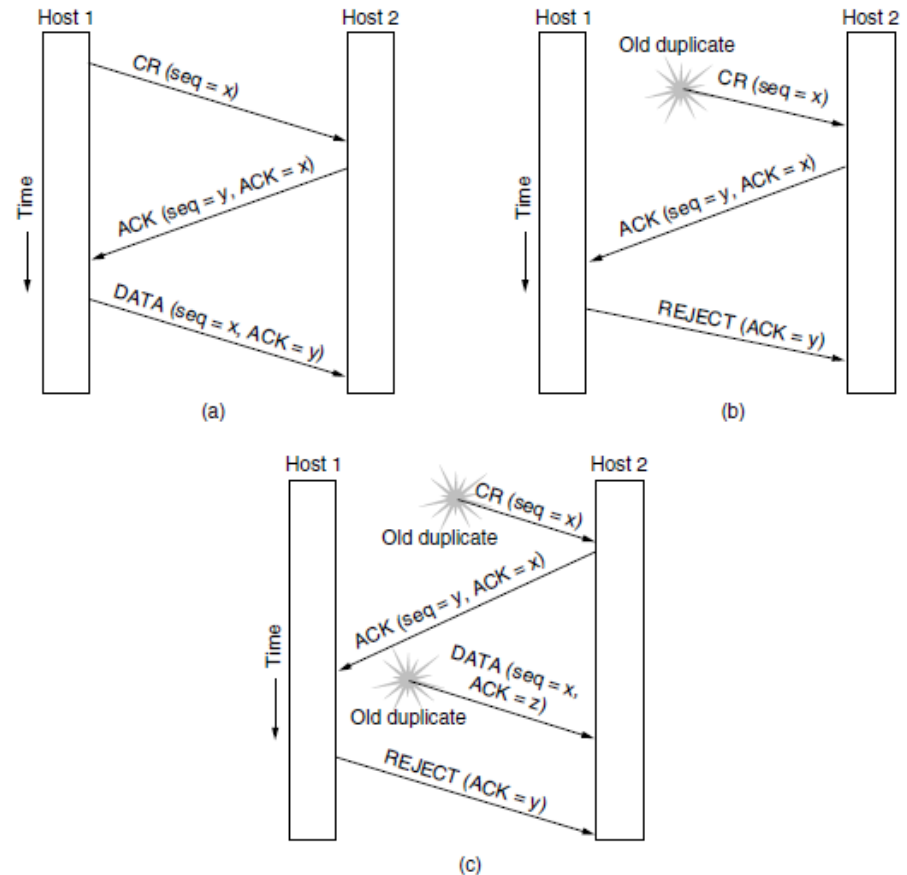
## Week 9 Workshop

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Semester 2, 2019

# Question 1

In determining maximum packet lifetime, we have to be careful and pick a large enough period to ensure that not only the packet but also its acknowledgements have vanished. Discuss why this is needed.



**Figure 6-11.** Three protocol scenarios for establishing a connection using a three-way handshake. CR denotes CONNECTION REQUEST. (a) Normal operation. (b) Old duplicate CONNECTION REQUEST appearing out of nowhere. (c) Duplicate CONNECTION REQUEST and duplicate ACK.

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## Question 2

Imagine that a two-way handshake, rather than a three-way handshake were used to set up connections. In other words, the third message was not required. Are deadlocks now possible? Give an example or show that none exist.

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## Question 3

Does the 3 way handshake based connection release protocol create a flawless disconnection?

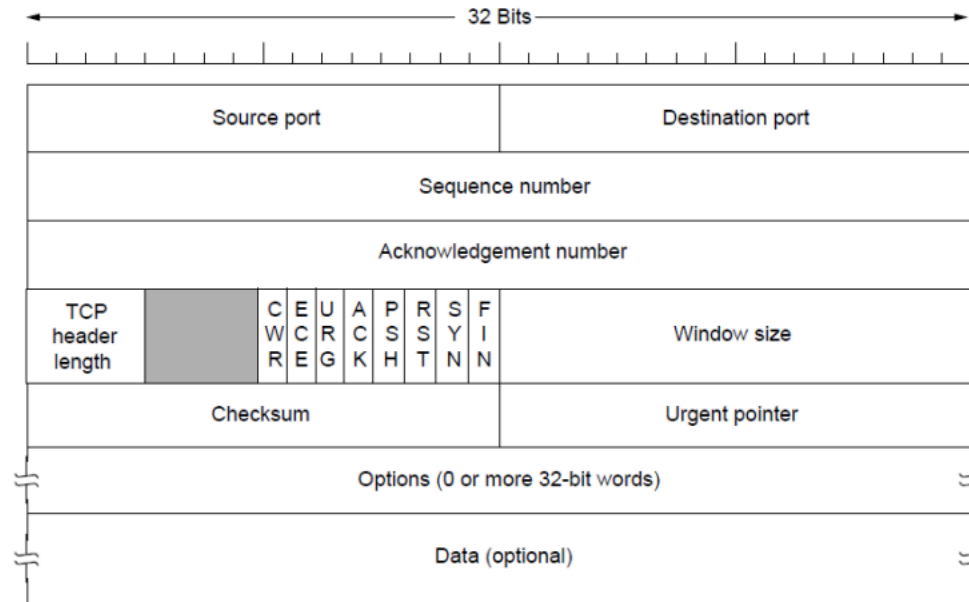
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## Question 4

What is the 2 army problem? Where does it occur in networking? Provide an example.

# Question 5

What information is sent with the TCP Segment header, explain each field briefly?



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## Question 6

Describe with a simple flowchart how a single socket-based client-server communication works?