

Workshop 3 - Submit at least 48 hours before your workshop session to receive credit (deadline set as a reminder)

[Re-submit Assignment](#)

Due May 7 by 15:00 **Points** 2 **Submitting** a text entry box or a file upload

Computer Networks & Applications

Workshop 3 - Network Layer

Workshops are aimed at practicing and developing your problem solving skills. As the focus is on the reasoning process and not the specific problems in the workshop, we do not distribute solutions to tutorials.

The 3 workshops make up 5% of your mark. Your tutor will review all submissions for your session and the workshop will be tailored around the submissions. The workshop will not just be going through the problems, but instead will focus on the problems/misconceptions that arise from reviewing the submissions. If the submissions answer all the questions correctly, the tutorial will cover other areas requested in submissions (some examples: working on current practical, more problems on a given topic, review of a topic, etc.)

To receive credit you must submit solution attempts to this tutorial at least 48 hours before your workshop session (as a reminder we have set a deadline of Saturday of the week before the tutorial).

Please note, *credit for partially completed submissions* will depend on the depth and breadth of answers (ie we may give credit if you answer most questions with clear thought and miss one question). If you are unable to answer a question, ***we expect you to write what thoughts you have on how to solve the question*** (what information is useful, what equations do you think are relevant, etc).

If you have any other questions about topics covered so far or other network related topics you are curious about, include them in your submission and we can discuss them in the workshop.

Question 1 - IP subnets

Are the two IP addresses 129.127.8.8 and 129.127.104.8 in the same subnet? Explain your answer.

Are the two IP addresses 129.127.8.8/24 and 129.127.104.8/24 in the same subnet? Explain your answer.

Question 2 - Allocating Addresses

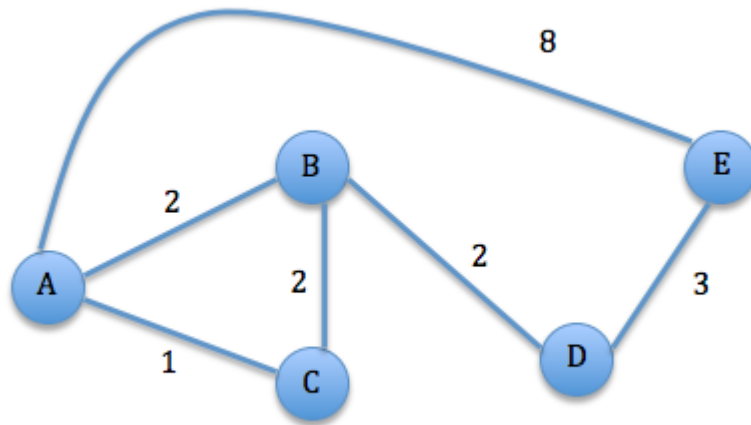
Two routers are directly connected to each other through some medium. What are the constraints on the IP addresses for the interfaces at each router?

What IP netmask would you use with these two routers to make the most efficient use of IP addresses?

Question 3 - IP Checksum

The IP checksum only covers the header not the data. Why might that be a reasonable design?

Question 4 - Routing Algorithms



Using node E as your base, show how node E builds its routing table, using Dijkstra's algorithm and then using Distance Vector.

Question 5 -

What topics or examples would you like to cover in this tutorial session?