

Lab Assignment



Cybersecurity Professional Program
Introductory Course

Network Fundamentals

IC-03-L2

IP Addressing

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Lab Objective

Acquire additional knowledge of IP address communication.



Lab Mission

Learn about IP addresses by way of a short quiz.



Lab Duration

10–15 minutes



Requirements

- Basic knowledge of the Internet Protocol (IP)



Resources

- Environment & Tools
 - Text editor



Textbook References

- Chapter 3: Network Fundamentals
 - Section 2: Network Addressing

Lab Task: IP Addressing Quiz

Test your knowledge of IP addressing via a short quiz.

The questions below assume the use of the classful network addressing model. Answer each of the questions below.

- 1** PC1 has the IP address **10.0.25.29**, and tries to communicate with PC2, which has the IP address **192.168.1.12**. Assume that both PCs are on the same LAN and are not connected to a router. Will PC1's communication attempt succeed if the addresses follow the A, B, C network class system? Why or why not?
- 2** PC5 has the **IP 172.20.7.12**. What is its subnet mask and CIDR, according to network addressing?
- 3** PC3 has the IP **172.20.0.13** and wants to communicate with PC5, which has the IP **172.20.7.12**. Both PCs are not connected to a router. Can PC3 communicate with PC5 if the addresses follow the classful network addressing model? Why?
- 4** PC6 has the IP address **10.0.0.25**. Can packets be routed directly to PC6 from the internet and vice versa? Why?
- 5** List two public IP addresses.
- 6** What are the network and host portions of the address **192.168.0.54/24**?