



HKUSTx: ELEC1200.3x A System View of Communications: From Signals to Packets (Part 3)


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3.1 Network Layer

Week 2 Quiz due Feb 01, 2016 at 15:30 UTC

**3.2 IP Addressing**

due Feb 01, 2016 at 15:30 UTC

3.3 Forwarding

due Feb 01, 2016 at 15:30 UTC

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 Bookmark**3.2 QUIZ QUESTION 1** (1/1 point)

Consider the following IP address given in CIDR notation: 143.89.14.2/22.

Give the binary bits corresponding to the host portion of the address as one continuous string of 0's and 1's with no spaces or periods in between, (e.g. 1010)

**Answer:** 1000000010**EXPLANATION**

The entire address is 32 bits long (four 8 bit numbers). The /22 indicates that the subnet part is 22 bits long, thus the last 10 bits are the host address. This corresponds to the last 2 bits of the 8 bit representation of 14 (000001110) and the 8 bit representation of 2 (00000010).

You have used 1 of 3 submissions

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and tutorials

3.2 QUIZ QUESTION 2 (1/1 point)

Consider a subnet with address 143.89.14.0/27.

How many addresses are contained within this subnet?

✓ Answer: 32

32

EXPLANATION

Of the 32 bit address, 27 bits correspond to the subnet, leaving 5 bits for the host, i.e. $2^5 = 32$ addresses.

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