

Worksheet 4. IP Addressing (Subnetting and subnet masks)

Assume that you have been assigned the 132.45.0.0 network block. You are required to define addressing for 8 subnets.

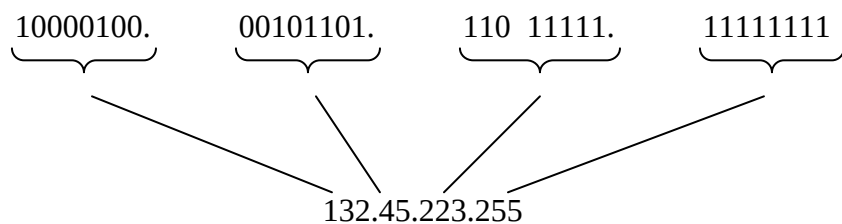
1. How many binary digits are required to define 8 subnets?
2. Specify the extended network prefix that allows the creation of 8 subnets in dotted-decimal notation.
3. Express the subnets in binary format and dotted-decimal notation

Subnet #	Binary format			Dotted-decimal notation
	Network Prefix	Subnet Number	Host Number	
0	10000100.00101101.	000	00000.00000000	
1				132.45.32.0
2				
3		011		132.45.96.0
4				
5			00000.00000000	
6				
7				

4. List the range of host addresses that can be assigned to Subnet# 3 (132.45.96.0)

Host #	Binary format			Dotted-decimal notation
	Network Prefix	Subnet Number	Host Number	
1	10000100.00101101.	011	00000.00000001	132.45.96.1
2	10000100.00101101.	011		
3	10000100.00101101.	011		132.45.96.3
:	:	:	:	:
8189	10000100.00101101.	011	11111.11111101	
8190	10000100.00101101.	011		

5. If the broadcast address for Subnet# 6 (132.45.192.0) is



What is the broadcast address for Subnet# 3 (132.45.96.0) ?