The University of Jordan, Comp. Eng. Dept.
Spring 2023: Networks lab: Experiment 5
Dynamic Routing: Distance Vector Protocols
(RIP: Theory and Practice)
(Prelab Report)

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In this repot you are required to fill the addressing table for problems 1.

Problem 1:

- You have been given the **200.50.0.0/20** address space to use in your network design. Perform CIDR to minimize the number of routing entries that each router will advertise. Consider that the default gateway IP addresses of the hosts (i.e., the routers' LAN interfaces) are included of the hosts' number.

Fill the table with the correct addresses:

Table 1. Addressing table for the CIDR problem 1

Subnet #	Addresses Required	Number of required bits for hosts	2^ (Number of required bits for hosts)	CIDR notation	Subnet mask	Network ID	Broadcast ID	First assignable address	Last assignable address
Subnet 0	**500**	9	**512**	**23**	**255.255.254.0**	**200.50.0.0**	**200.50.1.255**	**200.50.0.1**	**200.50.1.254**
Subnet 1	**220**	**8**	**256**	**24**	**255.255.255.0**	**200.50.2.0**	**200.50.2.255**	**200.50.2.1**	**200.50.2.254**
Subnet 2	**120**	**7**	**128**	**25**	**255.255.255.128**	**200.50.3.0**	**200.50.3.127**	**200.50.3.1**	**200.50.3.126**
Subnet 3	**60**	**6**	**64**	**26**	**255.255.255.192**	**200.50.3.128**	**200.50.3.191**	**200.50.3.129**	**200.50.3.190**
Subnet 4	**25**	**5**	**32**	**27**	**255.255.255.224**	**200.50.3.192**	**200.50.3.223**	**200.50.3.193**	**200.50.3.222**
Subnet 5	**10**	**4**	**16**	**28**	**255.255.255.240**	**200.50.3.224**	**200.50.3.239**	**200.50.3.225**	**200.50.3.238**
Subnet 6	**5**	**3**	**8**	**29**	**255.255.255.248**	**200.50.3.240**	**200.50.3.247**	**200.50.3.241**	**200.50.3.246**
Subnet 7	**5**	**3**	**8**	**29**	**255.255.255.248**	**200.50.3.248**	**200.50.3.255**	**200.50.3.249**	**200.50.3.254**
Subnet 8	**2**	**2**	**4**	**30**	**255.255.255.252**	**200.50.4.0**	**200.50.4.3**	**200.50.4.1**	**200.50.4.2**
Subnet 9	**2**	**2**	**4**	**30**	**255.255.255.252**	**200.50.4.4**	**200.50.4.7**	**200.50.4.5**	**200.50.4.6**
Subnet 10	**2**	**2**	**4**	**30**	**255.255.255.252**	**200.50.4.8**	**200.50.4.11**	**200.50.4.9**	**200.50.4.10**