192.168.0.0/18

A: 320 host

B: 120 host

C: 55 host

D: 50 host

E: 14 host

F: 2 host

G: 2 host

A 320 host <= 2^n - 2

host ID: n = 9 bit

net ID: 32 - 9 = 23

192.168.**00**000000. 00000000/23

net ID host ID

00001

00010

…

11110

11111

192.168.0.0/23

192.168.2.0/23//A

192.168.4.0/23

…

192.168.60.0/23

192.168.62.0/23

B = 120 host <= 2^n – 2

Host id: N = 7

Net id: 32 – 7 = 25

192.168.00000010.00000000/25

0 1

1 0

192.168.2.0/25/chia cho B

192.168.2.128/25

192.168.3.0/25

192.168.3.128/25

C= 55 host <= 2^n – 2

N = 6 host: giữ 6 host

32 – 6 = 26 -> NET id

192.168.2.10**000000**/26 -> giữ 6 bit, cần 26 bit: 8x3 = 24 bit là đủ còn 2 mà ở trên là /25 bit đầu ko đổi nên chỉ lấy 1 // chia cho C

192.168.2.11000000/26 || 192.168.2.192/26 (chia cho D)

E = 14 host <= 2^n – 2

N = 4

32 – 4 = 28

192.168.3.0/25 -> giữ 4 bit, , giữ 25 bit ko đổi -> chia 3 bit

192.168.3.0 **000** 0000/25 (Chia cho F)

192.168.3. 0 **001** 0000/25 -> 192.168.3.32/28 (Chia cho G)

192.168.3. 0 **010** 0000/28 -> 192.168.3.64/28 (chia cho E)

192.168.3. 0 **011** 0000/28 -> 192.168.3.96/28

192.168.3. 0 **100** 0000/28 -> 192.168.3.128/28

192.168.3. 0 **101** 0000/28 -> 192.168.3.160/28

192.168.3. 0 **110** 0000/28 -> 192.168.3.192/28

192.168.3. 0 **111** 0000/28 -> 192.168.3.224/28

F = 2 host >= 2^n – 2

N = 2

32 – 2 = 30

192.168.3.0 **000** 0000/30 -> giữ 25 bít đầu, 2 bit cuối

192.168.3.0 **000 00**00/30 // chia cho F

192.168.3.0 **000 01**00/30 // chia cho G

192.168.3.0 **000 10**00/30

192.168.3.0 **000 11**00/30

...

Ghi bảng

Bài 2: 192.168.2.0/24

A 55

B 50

C 45

D 25

E 2

F 2

**Chia cho A**

A = 55 host >= 2^n – 2

N = 6 host id

192.168.2.00000000/32 – 6 = 26 -> giữ 24 và 6 bit cuối -> đổi 2 bit

192.168.2. 00**000000**/26 // chia cho A

192.168.2. 01**000000**/26 // chia cho B

192.168.2. 10**000000**/26 // chia cho C

192.168.2. 11**000000**/26

D = 25 host >= 2^n – 2

N = 5

192.168.2. **11**0**00000**/27 -> giữ 5 bit cuối, giữ 26 bit đầu -> đổi 1 bit // chia cho D

192.168.2. **11**1**00000**/27

E = 2 host >= 2^n – 2

N = 2

192.168.2. **111**000**00**/32 – 2 = 30 -> giữ 2 bit cuối, giữ 27 bit đầu // chia cho E

192.168.2. **111**001**00**/30 // chia cho F

192.168.2. **111**010**00**/30

192.168.2. **111**011**00**/30

...

GHI BẢNG