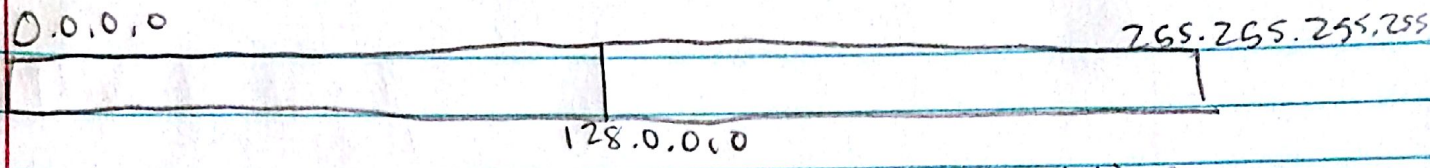
Taylor Earl
9/27




# of addresses in powers of 2
prefix length $32 - \log_2(N)$

$\log_2(4) = 2$
$\log_2(8) = 3$
$\log_2(37) = 5$

Contiguous block
Start at location divisbl by 10
• Allocate Largest block first

I want 12 networks of equal size
Private 10.0.0.0/8

How many $2^{24} = 12\overline{)16,777,216}$ 1398101 x

$\log_2$ = 20.1... round down

$2^{20} = 1,048,576$

$32 - (\log_2(\quad) = (20)) = 12$

1- 10.0.0.0/12
255.11110000.0.0 compliment
0.15.255.255
10.0.0.0 or
10.15.255.255

2- $10.16.0^{+1}.0/12$
0.15.255.255 compliment
10.31.255.255 or +

3- $10.32^{+1}.0.0$

4- 10.48.0.0

13.5.3.2 /24 256 - /24
13.5.3.0 /25 128 - /25
13.5.3.128 /26 64 - /26
13.5.3.192 /27 32 - /27
13.5.3.224 /27 32 - /27