

Homework #3-4

3.7.21 a) *Engineering has 5 machines and intend to add 1 machine every week after 7 years...

$$5 + \left(\frac{7 \cdot 365}{7} \right) = 370 \Rightarrow 512 \text{ addresses needed}$$

* Marketing need max 16 so 16 addresses for them

- Sales dep. 1 computer per every 2 clients ~~and every 7 days~~

- After 1 year each has 6 and will get 1 new customer every week with 60% probability and will lose one every week with 20%

$$\frac{1}{2} \left(6 + \left(\frac{6}{10} - \frac{2}{10} \right) \cdot \frac{365 \cdot 6}{7} \right) = 63 \Rightarrow 64 \text{ subaddresses}$$

622 addresses are needed



b) The addresses long lasts as long as company runs out of address space when one part it is remodeled through the subnet to allocate more.

c) 370 addresses are needed for A which is > than 256

a block of 65,536 addresses will be good

P:	Address	Next Hop
	C2.0.0.0/8	R
	C3.0.0.0/8	Q
	C1.A3.0.0/16	PA
	C1.B0.0.0/12	P.B

Q:	Address	Next Hop	R: Address	Hop
	C1.0.0.0/8	P	C1.0.0.0/8	P
	C2.0.0.0/8	R	C3.0.0.0/8	Q
	C2.0A.10.0/20	QA		
	C2.0B.0.0/16	QB		