

# VLSM SUBNETTING

**192.168.0.0/21**

Each network has its own size (variable).



1. We punt in order from higher hosts to less.
2. For each line in the table we calculate the equation 'x', the block size and the mask.
3. Equation:  $\min(x) 2^x \geq \text{hosts} + 2$
4. Block size:  $2^x$
5. Mask:  $32 - x$
6. Fill the table with the results

**192.168.00000xxx.xxxxxxxx**

192.168.0.0 - 192.168.7.255

	SIZE	X	BLOCK	MASK
Alumnos	510	9	512	/23 (255.255.254.0)
Visitantes	510	9	512	/23 (255.255.254.0)
Administrativos	254	8	256	/24 (255.255.255.0)
Docentes	254	8	256	/24 (255.255.255.0)
Dirección	120	7	128	/25 (255.255.255.128)

## **Calculate network and broadcast address**

	IP FORMAT	NETWORK ADD.	BROADCAST ADD.
Alumnos	192.168.0000000x.xxxxxxxx	192.168.0.0	192.168.1.255
Visitantes	192.168.0000001x.xxxxxxxx	192.168.2.0	192.168.3.255
Administrativos	192.168.00000100.xxxxxxxx	192.168.4.0	192.168.4.255
Docentes	192.168.00000101.xxxxxxxx	192.168.5.0	192.168.5.255
Dirección	192.168.00000110.0xxxxxxx	192.168.6.0	192.168.6.127

<https://calculadoraip.org/vlsm>

Free Online VLSM Subnetting Calculator