FREE STARTER · SIR VANTES

Subnetting Made Simple

The topic every IT student fears — broken down into a few rules you can actually remember. No jargon, just the method that works on the exam and on the job.

FREE

Sir Vantes

Joshua Cervantes · joshuacervantes.online

START HERE

Stop memorizing. Start seeing the pattern.

Subnetting looks scary because it's taught with heavy binary. You don't need that to get the right answer fast.

Everything below rests on **one idea**: subnets come in fixed "block sizes," and once you know the block size, you can find the network, the broadcast, and the usable range in seconds — no long binary conversions.

STEP 1

The "magic numbers"

A subnet mask octet can only be one of these values. Memorize them — that's most of the battle.

Mask value	CIDR bits	Block size
128	/25	128
192	/26	64
224	/27	32
240	/28	16
248	/29	8
252	/30	4

THE ONE RULE

Block size = 256 – mask value. Example: mask 192 → 256 – 192 = block size 64.

STEP 2

Find the network & broadcast (worked example)

Question: For the host `192.168.1.70 /26`, what network is it in, and what's the broadcast?

1. Get the block size

/26 → mask 255.255.255.**192** → block size = 256 − 192 = **64**.

2. List the subnets (count by the block size in the last octet)

`.0` `.64` `.128` `.192`

The host ends in **.70**, which falls between .64 and .128 → it belongs to the**.64** subnet.

3. Read off the answers

Network address	`192.168.1.64`
First usable host	`192.168.1.65`
Last usable host	`192.168.1.126`
Broadcast address	`192.168.1.127`
Usable hosts	64 − 2 = **62**

WHY −2?

Every subnet loses two addresses: the network address (first) and the broadcast address (last). Those can't be assigned to devices.

STEP 3

Try it yourself

Cover the answers. Use the same 3 steps.

Q1. How many usable hosts in a `/28`?
A: Block size 16 → 16 – 2 = **14** usable.

Q2. What subnet is `10.0.0.200 /27` in?
A: Block size 32 → subnets .0, .32 … .192, .**224**. .200 falls in the **10.0.0.192** subnet (broadcast .223).

Q3. Broadcast of `172.16.5.0 /30`?
A: Block size 4 → .0 network, .1–.2 usable, **.3 broadcast**.

KEEP GOING — FREE

Where to go next

You just learned the method most students struggle with for weeks. Here's how to lock it in.

- **Practice free:** the Net+ diagnostic trainer at joshuacervantes.online/labs drills subnetting until it's automatic.
- **Watch the walkthroughs:** Sir Vantes on YouTube — Tagalog IT real talk.

Ready to go deeper?

This free starter covers subnetting only. The paid packs cover everything else you'll be tested on:

Cert Cheat-Sheet & Reviewer Pack — ₱49: ports, OSI, commands, IP ranges + flashcards.
IT Cert Practice Exam Pack — ₱149: 50 questions with explanations across 8 domains.

Get them at joshuacervantes.online/shop