

DASAR IPV4

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Kelompok 1

IPv4 berisi 32 bit, dibagi menjadi 4 kelompok masing-masing berisi 8 bit & hanya berisi bilangan biner.

KONVERSI BINER KE DESIMAL

| Konversi | biner | ke | desimal |
|------------|-------|-------------|---------|
| $2^0 = 1$ | | $2^5 = 32$ | |
| $2^1 = 2$ | | $2^6 = 64$ | |
| $2^2 = 4$ | | $2^7 = 128$ | |
| $2^3 = 8$ | | | |
| $2^4 = 16$ | | | |

Contoh soal

a. 00111110 . 63

b. 00100000 . 32

| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | = 255 |
|-----|----|----|----|---|---|---|---|-------|
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | → 32 |
| 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | ↓ 16 |
| | | | | | | | | 48 |
| | | | | | | | | 8 |
| | | | | | | | | 56 |
| | | | | | | | | 4 |
| | | | | | | | | 60 |
| | | | | | | | | 2 |
| | | | | | | | | 62 |
| | | | | | | | | 1 |
| | | | | | | | | 63 |

128 64 32 16 8 4 2 1

0 0 1 1 1 1 1 0 = 63

KONVERSI DESIMAL KE BINER

konversi desimal ke biner

contoh soal

a. 139 = 10001010

b. 10 = 00001010

| | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | |
|--|-----|----|----|----|---|---|---|---|-------|
| | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | = 255 |
| | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | = 139 |
| | | | | | | | | | = 10 |

a. 139

$$\begin{array}{r} 128 - \\ \hline 10 \\ 8 - \\ \hline 2 \\ 2 - \\ \hline 0 \end{array}$$

b. 10

$$\begin{array}{r} 8 - \\ \hline 2 \\ 2 - \\ \hline 0 \end{array}$$

KELAS IP ADDRESS

| | Mulai | Hingga | | | | | | | | |
|------------------|--|-----------------|------------------|--|-----------------|--|-------------|-------------|-------|--------|
| Kelas A | <table><tr><td>0</td><td>0 . 0 . 0</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 0 | 0 . 0 . 0 | Netid | Hostid | <table><tr><td>127</td><td>255.255.255</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 127 | 255.255.255 | Netid | Hostid |
| 0 | 0 . 0 . 0 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| 127 | 255.255.255 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| Kelas B | <table><tr><td>128 . 0</td><td>0 . 0</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 128 . 0 | 0 . 0 | Netid | Hostid | <table><tr><td>191.255</td><td>255.255</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 191.255 | 255.255 | Netid | Hostid |
| 128 . 0 | 0 . 0 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| 191.255 | 255.255 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| Kelas C | <table><tr><td>192 . 0 . 0</td><td>0</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 192 . 0 . 0 | 0 | Netid | Hostid | <table><tr><td>223.255.255</td><td>255</td></tr><tr><td>Netid</td><td>Hostid</td></tr></table> | 223.255.255 | 255 | Netid | Hostid |
| 192 . 0 . 0 | 0 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| 223.255.255 | 255 | | | | | | | | | |
| Netid | Hostid | | | | | | | | | |
| Kelas D | <table><tr><td>224 . 0 . 0 . 0</td></tr><tr><td>Alamat Multicast</td></tr></table> | 224 . 0 . 0 . 0 | Alamat Multicast | <table><tr><td>239.255.255.255</td></tr><tr><td>Alamat Multicast</td></tr></table> | 239.255.255.255 | Alamat Multicast | | | | |
| 224 . 0 . 0 . 0 | | | | | | | | | | |
| Alamat Multicast | | | | | | | | | | |
| 239.255.255.255 | | | | | | | | | | |
| Alamat Multicast | | | | | | | | | | |
| Kelas E | <table><tr><td>24- . 0 . 0 . 0</td></tr><tr><td>Cadangan</td></tr></table> | 24- . 0 . 0 . 0 | Cadangan | <table><tr><td>255.255.255.255</td></tr><tr><td>Cadangan</td></tr></table> | 255.255.255.255 | Cadangan | | | | |
| 24- . 0 . 0 . 0 | | | | | | | | | | |
| Cadangan | | | | | | | | | | |
| 255.255.255.255 | | | | | | | | | | |
| Cadangan | | | | | | | | | | |

IDENTIFIKASI ADDRESS CLASS

Identifikasi Address Class

Contoh soal,

a. 95.0.21.90

• A

b. 177.100.19.4

• B

IDENTIFIKASI PORSI NETWORK

| Identifikasi | Porsi | Network |
|----------------------|-------|---------------|
| a. 150 . 10 . 15 . 0 | • | 150 . 10 |
| b. 215 . 45 . 45 . 0 | • | 215 . 45 . 45 |

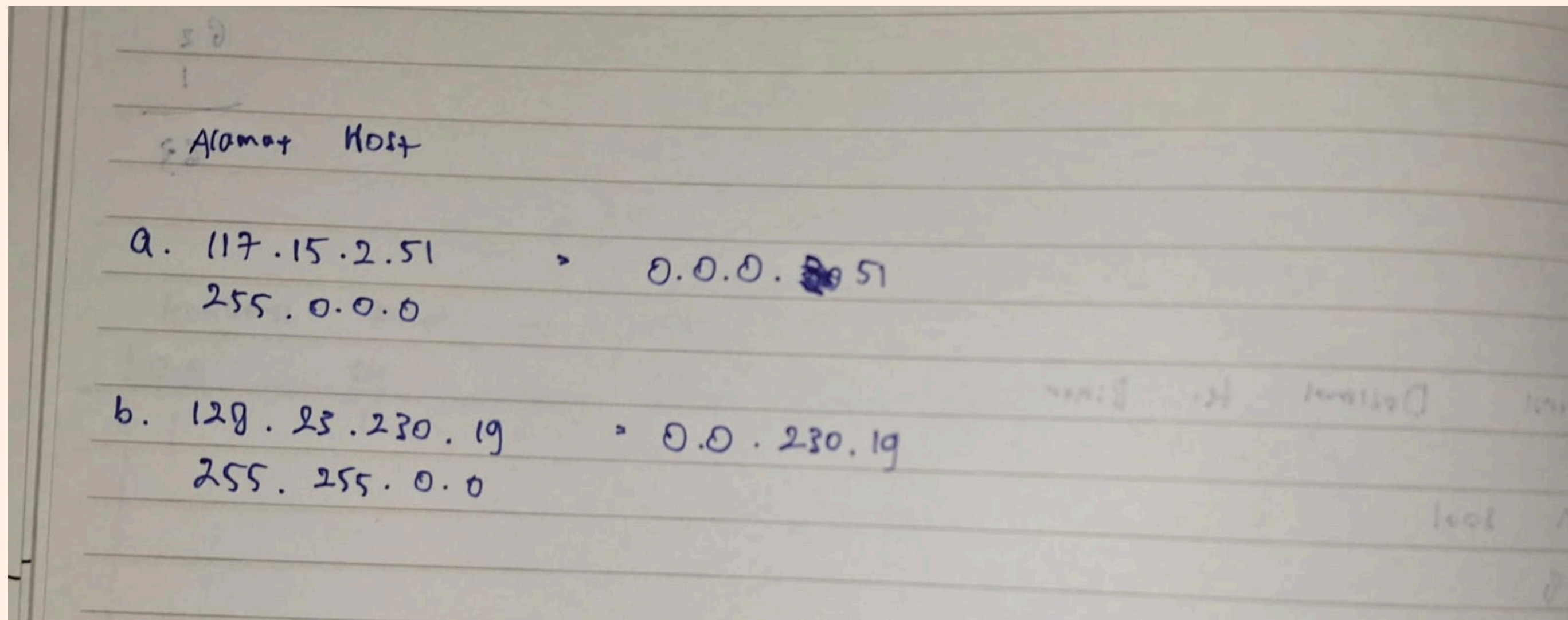
IDENTIFIKASI PORSI HOST

| Identifikasi | Porsi | Host |
|-------------------------|-------|-------------|
| a. 218 . 155 . 230 . 14 | • | 14 |
| b. 55 . 250 . 5 . 5 | • | 250 . 5 . 5 |

ALAMAT JARINGAN

| Alamat | Jaringan | Network |
|----------------------|----------------|-----------------|
| a. 27. 125. 200. 151 | 255. 0. 0. 0 | 27. 125. 200. 0 |
| b. 150. 203. 23. 19 | 255. 255. 0. 0 | 150. 203. 0. 0 |

ALAMAT HOST



DEFAULT SUBNET MASK

| Default | Subnet | mask | | | | | |
|---------|--------|------|-----|-----|--|-----|-----|
| | 223 | 23 | 223 | 109 | | 255 | 255 |
| a. | 223 | 23 | 223 | 109 | | 255 | 255 |
| b. | 88 | 45 | 65 | 35 | | 255 | 0 |
| | | | | | | 0 | 0 |



LINK YTB :
[HTTPS://YOUTU.BE/40PZYXiN00C](https://youtu.be/40pzyxiN00C)