**Worksheet 15 - Datagram forwarding**

Use the table below and indicate the the link interface that the datagram must be forwarded on:

|  |  |  |
| --- | --- | --- |
| **Row** | **Destination Range** | **Link Interface** |
| 1 | 192.168.24.0 to 192.168.27.255 | 0 |
| 2 | 192.168.28.0 to 192.168.28.255 | 1 |
| 3 | 192.168.29.0 to 192.168.31.255 | 2 |
| 4 | default | 3 |

|  |  |  |
| --- | --- | --- |
| **Row** | **Destination Address Range in Binary** | **Link Interface** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

1. DA = 11000000 10101000 00010111 11001100

DA in decimal =

1. DA = 11000000 10101000 00011011 11001100

DA in decimal =

1. DA = 11000000 10101000 00011101 10101010

DA in decimal =

1. DA = 11000000 10101000 00011110 10001000

DA in decimal =

1. DA = 11000000 10101000 00011100 10010101

DA in decimal =

Now what if row 2 is removed from the table above. Use the table below and indicate the the link interface that the datagram address given below must be forwarded on. Is it correct?

|  |  |  |
| --- | --- | --- |
| **Row** | **Destination Address Range** | **Link Interface** |
| 1 | 192.168.24.0 to 192.168.27.255 | 0 |
| 2 | 192.168.29.0 to 192.168.31.255 | 2 |
| 3 | default | 3 |

|  |  |  |
| --- | --- | --- |
| **Row** | **Destination Address Range** | **Link Interface** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

1. DA = 11000000 10101000 00011100 10010101

DA in decimal =

You will have to split up range in row two into two other rows with more specific ranges.

|  |  |  |
| --- | --- | --- |
| **Row** | **Destination Address Range** | **Link Interface** |
| 1 | 192.168.24.0 to 192.168.27.255 | 0 |
| 2 |  |  |
| 3 |  |  |
| 4 | default | 3 |