Specific Subnet Information Calculation

Find out 784th number subnet information from 172.16.0.0/29

At first you have to find out the binary number of (784-1) = 783

Binary Bits:	1	1	0	0	0	0	1	1	1	1	= 783
Bit Value:	512	256	128	64	32	16	8	4	2	1	

Now this bits will be started from 29th bit because up to 29th bit are network bit.

Bit Number:	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	128	64	32	16	8	4	2	1	.128	64	32	16	8	|4	2	1
172.16.	0	0	0	1	1	0	0	0	. 0	1	1	1	1	|0	0	0

Here in 3rd octet (16+8) = 24 bits are on

And in last octet 64+32+16+8 = 120 bits are on.

So the Network IP of 784th Subnet is 172.16.24.120/29

Prove: subnet number = (3rd octet IP x number of subnet) + (last octet IP ÷ block size) +1

(24 x 32) + (120 ÷ 8) + 1

768 + 15 + 1

784

Another way to find out number of subnet information (for B class only):

*** you have find out 502nd subnet information from 172.16.0.0/30

3rd Octet IP = No. of subnet asked for ÷ Total subnet of last octet

= (502 ÷ 64)

=7.84375

Here 3rd octet IP will be 7 (without fraction)

4th octet IP = {(3rd Octet IP X Total subnet of last octet) – No. of subnet asked for} x Block Size

= {(7 X 64) – 502} X 4

= {448 – 502} X 4

= 54 X 4

= 216

The Network IP of 502nd subnet is 172.16.7.216/30

Way to find out number of subnet information (for C class only)

*** you have find out 47th number subnet information from 192.168.16.0/30

4th Octet network IP = (No. of subnet asked for X Block Size) – Block Size

= (47 X 4) – 4

= 184

The Network IP of 47th subnet is 192.168.16.184/30