

a. 82913

$2^{16}$	$2^{15}$	$2^{14}$	$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
65536	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1
1	0	1	0	0	0	0	1	1	1	1	0	0	0	0	1	
		4		3			E					1				
1		4		3			7					4			1	

$$82913_{10} = 65536_{10} + 16384_{10} + 512_{10} + 256_{10} + 128_{10} + 64_{10} + 32_{10} + 1_{10}$$

$$82913_{10} = 1010000111100001_2$$

$$82913_{10} = 143E1_{16}$$

$$82913_{10} = 141391_8$$

b. 3313

$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
2048	1024	512	256	128	64	32	16	8	4	2	1
1	1	0	0	1	1	1	1	0	0	0	1
C		P		F			O		1		
6		3		6			0		1		

$$3313_{10} = 2048_{10} + 1024_{10} + 128_{10} + 64_{10} + 32_{10} + 16_{10} + 1_{10}$$

$$3313_{10} = 11001110001_2$$

$$3313_{10} = CF1_{16}$$

$$3313_{10} = 6361_8$$



c. 482

$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
256	128	64	32	16	8	4	2	1
1	1	1	1	0	0	0	1	0
1		E					2	
7			4				2	

$$482_{10} = 256_{10} + 128_{10} + 64_{10} + 32_{10} + 2_{10}$$

$$482_{10} = 111100010_2$$

$$482_{10} = 1E2_{16}$$

$$482_{10} = 742_8$$

d. 10249

$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1
1	0	1	0	0	0	0	0	0	0	1	0	0	1
2		8								9			
2		4			2	0			2	1		2	

$$10249_{10} = 8192_{10} + 2048_{10} + 8_{10} + 1_{10}$$

$$10249_{10} = 10100000001001_2$$

$$10249_{10} = 2809_{16}$$

$$10249_{10} = 24011_8$$



e. 297781

$2^{18}$   $2^{17}$   $2^{16}$   $2^{15}$   $2^{14}$   $2^{13}$   $2^{12}$   $2^{11}$   $2^{10}$   $2^9$   $2^8$   $2^7$   $2^6$   $2^5$   $2^4$   $2^3$   $2^2$   $2^1$   $2^0$   
 262144 131072 65536 32768 16384 8192 4096 2048 1024 512 256 128 64 32 16 8 4 2 1

1 0 0 1 0 0 0 1 0 1 1 0 0 1 1 0 1 0 1

4                      8                      D                      3                      5

1                      1                      0                      5                      4                      6                      5

$$297781_{10} = 262144_{10} + 32768_{10} + 2048_{10} + 512_{10} + 256_{10} + 32_{10} + 16_{10} + 4_{10} + 1_{10}$$

$$297781_{10} = 1001000101100110101_2$$

$$297781_{10} = 48B35_{16}$$

$$297781_{10} = 1105465_8$$

f. 2347

$2^{10}$   $2^9$   $2^8$   $2^7$   $2^6$   $2^5$   $2^4$   $2^3$   $2^2$   $2^1$   $2^0$   
 1024 512 256 128 64 32 16 8 4 2 1

1 0 0 1 0 0 1 0 1 0 1 1

9                      1                      B

4                      4                      5                      3

$$2347_{10} = 2048_{10} + 256_{10} + 32_{10} + 8_{10} + 4_{10} + 1_{10}$$

$$2347_{10} = 100100101011_2$$

$$2347_{10} = 92B_{16}$$

$$2347_{10} = 4453_8$$



g. 9837

$2^{13}$   $2^{12}$   $2^{11}$   $2^{10}$   $2^9$   $2^8$   $2^7$   $2^6$   $2^5$   $2^4$   $2^3$   $2^2$   $2^1$   $2^0$   
 8192 4096 2048 1024 512 256 128 64 32 16 8 4 2 1

1 0 0 1 1 0 0 1 1 0 1 1 0 1

2 6 6 C

2 3 1 6 2 5

$$9837_{10} = 8192_{10} + 1024_{10} + 512_{10} + 64_{10} + 32_{10} + 8_{10} + 4_{10} + 1_{10}$$

$$9837_{10} = 10011001101101_2$$

$$9837_{10} = 266C_{16}$$

$$9837_{10} = 23165_8$$

h. 783273

$2^{19}$   $2^{18}$   $2^{17}$   $2^{16}$   $2^{15}$   $2^{14}$   $2^{13}$   $2^{12}$   $2^{11}$   $2^{10}$   $2^9$   $2^8$   $2^7$   $2^6$   $2^5$   $2^4$   $2^3$   $2^2$   $2^1$   $2^0$   
 524288 262144 131072 65536 32768 16384 8192 4096 2048 1024 512 256 128 64 32 16 8 4 2 1

1 0 1 1 1 1 1 1 0 0 1 1 1 0 1 0 1 0 0 1

B F 3 A 9

2 7 7 1 6 5 1

$$783273_{10} = 524288_{10} + 131072_{10} + 65536_{10} + 32768_{10} + 16384_{10} + 8192_{10} + 4096_{10} + 512_{10} + 256_{10} + 128_{10} + 32_{10} + 8_{10} + 1_{10}$$

$$783273_{10} = 101111100110101001_2$$

$$783273_{10} = BF3A9_{16}$$

$$783273_{10} = 2771651_8$$



i. 87283

$2^{16}$	$2^{15}$	$2^{14}$	$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
65536	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1

1 0 1 0 1 0 1 0 0 1 1 1 1 0 0 1 1

1 5 4 F 3

2 5 2 3 6 3

$$87283_{10} = 65536_{10} + 16384_{10} + 4096_{10} + 1024_{10} + 128_{10} + 64_{10} + 32_{10} + 16_{10} + 2_{10} + 1_{10}$$

$$87283_{10} = 10101010011110011_2$$

$$87283_{10} = 154FB_{16}$$

$$87283_{10} = 252363_8$$

j. 26262

$2^{17}$	$2^{16}$	$2^{15}$	$2^{14}$	$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
131072	65536	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1

1 1 0 0 1 1 0 1 0 0 1 0 1 1 0

6 6 9 6

6 3 2 2 6

$$26262_{10} = 16384_{10} + 8192_{10} + 1024_{10} + 512_{10} + 128_{10} + 16_{10} + 4_{10} + 2_{10}$$

$$26262_{10} = 110011010010110_2$$

$$26262_{10} = 6696_{16}$$

$$26262_{10} = 63226_8$$



Y. 050695

$2^{15}$	$2^{14}$	$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1

1 1 0 0 0 1 1 0 0 0 0 0 0 1 1 1

C 5 0 7

1 4 3 0 0 7

$$050695_{10} = 32768_{10} + 16384_{10} + 1024_{10} + 512_{10} + 4_{10} + 2_{10} + 1_{10}$$

$$050695_{10} = 1100011000000111_2$$

$$050695_{10} = C607_{16}$$

$$050695_{10} = 143007_8$$

Q. 55263

$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1	1	1

1 1 0 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1

D 7 0 F

1 5 3 7 3 7

$$55263_{10} = 32768_{10} + 16384_{10} + 4096_{10} + 1024_{10} + 512_{10} + 256_{10} + 128_{10} + 64_{10} + 16_{10} + 8_{10} + 4_{10} + 2_{10} + 1_{10}$$

$$55263_{10} = 110101111011111_2$$

$$55263_{10} = D7DF_{16}$$

$$55263_{10} = 133727_8$$



m. 43720

$2^{18}$	$2^{17}$	$2^{16}$	$2^{15}$	$2^{14}$	$2^{13}$	$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1			

1 0 1 0, 1 0 1 0, 1 1 0 0, 1 0 0 0

A A C 8

1 2 5 3 1 0

$$43720_{10} = 32768_{10} + 8192_{10} + 2048_{10} + 512_{10} + 128_{10} + 64_{10} + 8_{10}$$

$$43720_{10} = 1010101011001000_2$$

$$43720_{10} = AAC8_{16}$$

$$43720_{10} = 125310_8$$

n. 6713

$2^{12}$	$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
4096	2048	1024	512	256	128	64	32	16	8	4	2	1

1 1 0 1 0 0 0 1 1 1 0 0 1

1 A 3 9

1 5 0 7 1

$$6713_{10} = 4096_{10} + 2048_{10} + 512_{10} + 32_{10} + 16_{10} + 8_{10} + 1_{10}$$

$$6713_{10} = 110100011001_2$$

$$6713_{10} = 1A39_{16}$$

$$6713_{10} = 15071_8$$



0. 662

<sup>9</sup>	<sup>8</sup>	<sup>7</sup>	<sup>6</sup>	<sup>5</sup>	<sup>4</sup>	<sup>3</sup>	<sup>2</sup>	<sup>1</sup>	<sup>0</sup>
2	2	2	2	2	2	2	2	2	2
512	256	128	64	32	16	8	4	2	1

1 0 1 0 0 1 0 1 1 0

2 9 6

1 2 2 6

$$662_{10} = 512_{10} + 128_{10} + 16_{10} + 4_{10} + 2_{10}$$

$$662_{10} = 1010010110_2$$

$$662_{10} = 296_{16}$$

$$662_{10} = 1226_8$$