

The US American Standards Committee for Information Interchange (ASCII) Code

Binary		000	001	010	011	100	101	110	111
	Hex	0x0	0x1	0x2	0x3	0x4	0x5	0x6	0x7
0000	+0	NUL	DLE	SP	0	@	P	'	p
0001	+1	SOH	DC1	!	1	A	Q	a	q
0010	+2	STX	DC2	"	2	B	R	b	r
0011	+3	ETX	DC3	#	3	C	S	c	s
0100	+4	EOT	DC4	\$	4	D	T	d	t
0101	+5	ENQ	NAK	%	5	E	U	e	u
0110	+6	ACK	SYN	&	6	F	V	f	v
0111	+7	BEL	ETB	'	7	G	W	g	w
1000	+8	BS	CAN	(	8	H	X	h	x
1001	+9	HT	EM	)	9	I	Y	i	y
1010	+A	LF	SUB	*	:	J	Z	j	z
1011	+B	VT	ESC	+	;	K	[	k	{
1100	+C	FF	FS	,	<	L	\	l	|
1101	+D	CR	GS	_	=	M	]	m	}
1110	+E	SO	RS	.	>	N	^	n	~
1111	+F	SI	US	/	?	O	-	o	DEL

For example,

- 1 is represented with decimal value 49, binary value 0110001, and hexadecimal value 0x31
- Upper case A is represented with decimal value 65, binary value 1000001, and hexadecimal value 0x41
- DEL is represented with decimal value 127, binary value 1111111, and hexadecimal value 0x7F
- + is represented with decimal value 43, binary value 0101011, and hexadecimal value 0x2B

Base-64 Encoding Scheme

Binary		00	01	10	11
	Hex	0x0	0x1	0x2	0x3
0000	+0	A	Q	g	w
0001	+1	B	R	h	x
0010	+2	C	S	i	y
0011	+3	D	T	j	z
0100	+4	E	U	k	0
0101	+5	F	V	l	1
0110	+6	G	W	m	2
0111	+7	H	X	n	3
1000	+8	I	Y	o	4
1001	+9	J	Z	p	5
1010	+A	K	a	q	6
1011	+B	L	b	r	7
1100	+C	M	c	s	8
1101	+D	N	d	t	9
1110	+E	O	e	u	+
1111	+F	P	f	v	/

For example,

Input text: you

8-bit : 01011001 01101111 01110101

6-bit : 010110 010110 111101 110101

Decimal : 22 22 61 53

Hex : 0x16 0x16 0x3D 0x35

Output : W W 9 1

Input text: The

8-bit : 01010100 01101000 01100101

6-bit : 010101 000110 100001 100101

Decimal : 21 6 33 37

Hex : 15 6 21 25

Output : V G h l