

Description	Char	Hex	Character Reference (Dec)	Entity Name
Lowercase a-cedille			ą	ą
Capital A-umlaut			Ä	Ä
Lowercase a-umlaut			ä	ä
Capital E-acute			É	É
Lowercase e-acute			é	é
Capital E-cedille			Ę	Ě
Lowercase e-cedille			ę	ě
Capital E-hachek			Ě	Ě
Lowercase e-hachek			ě	ě
Capital I-acute			Í	Í
Lowercase i-acute			í	í
Capital O-acute			Ó	Ó
Lowercase o-acute			ó	ó
Capital O-circ			Ô	Ô
Lowercase o-circ			ô	ô
Capital U-acute			Ú	Ú
Lowercase u-acute			ú	ú
Capital U-ring			Ů	Û
Lowercase u-ring			ů	û
Capital Y-acute			Ý	Ý
Lowercase y-acute			ý	ý
Capital C-hachek			Č	Č
Lowercase c-hachek			č	č
d-apostrophe			ď	ď
t-apostrophe			ť	ť
Capital L-acute			Ĺ	Ĺ
Lowercase l-acute			ĺ	ĺ
Capital N-hachek			Ň	Ň
Lowercase n-hachek			ň	ň
Capital R-acute			Ŕ	Ř
Lowercase r-acute			ŕ	ř
Capital R-hachek			Ř	Ř
Lowercase r-hachek			ř	ř
Capital S-hachek			Š	Š
Lowercase s-hachek			š	š
Capital Z-hachek			Ž	Ž
Lowercase z-hachek			ž	ž
null	NUL	^@	0	�
start of heading	SOH	^A	1	
start of text	STX	^B	2	
end of text	ETX	^C	3	
end of transmission	EOT	^D	4	
enquiry	ENQ	^E	5	
acknowledge	ACK	^F	6	
bell	BEL	^G	7	
backspace	BS	^H	8	

horizontal tab	HT	^I	9			
line feed, new line	LF, NL	^J	0A	
	
vertical tab	VT	^K	0B		
form feed, new page	FF, NP	^L	0C		
carriage return	CR	^M	0D		
shift out	SO	^N	0E		
shift in	SI	^O	0F		
data link escape	DLE	^P	10		
device control 1	DC1	^Q	11		
device control 2	DC2	^R	12		
device control 3	DC3	^S	13		
device control 4	DC4	^T	14		
negative acknowledge	NAK	^U	15		
synchronous idle	SYN	^V	16		
end of trans. block	ETB	^W	17		
cancel	CAN	^X	18		
end of medium	EM	^Y	19		
substitute	SUB	^Z	1A		
escape	ESC	^[1B		
file separator	FS	^\	1C		
group separator	GS	^]	1D		
record separator	RS	^^	1E		
unit separator	US	^_	1F		
space			20	 	&sp;
exclamation mark		!	21	!	! !
(double) quotation mark		"	22	"	" "
number sign		#	23	#	# #
dollar sign		\$	24	$	\$ $
percent sign		%	25	%	% %
ampersand		&	26	&	& &
apostrophe, single quote mark		'	27	'	' '
left parenthesis		(28	(((
right parenthesis)	29)))
asterisk		*	2A	*	* *
plus sign		+	2B	+	+ +
comma		,	2C	,	, ,
minus sign, hyphen		-	2D	-	- ‐
					-
period, decimal point, full stop		.	2E	.	. .
slash, virgule, solidus		/	2F	/	/ /
digit 0		0	30	0	0
digit 1		1	31	1	1
digit 2		2	32	2	2
digit 3		3	33	3	3
digit 4		4	34	4	4
digit 5		5	35	5	5
digit 6		6	36	6	6
digit 7		7	37	7	7

digit 8	8	38	8	8
digit 9	9	39	9	9
colon	:	3A	:	: :
semicolon	;	3B	;	; ;
less-than sign	<	3C	<	< <
equal sign	=	3D	=	= =
greater-than sign	>	3E	>	> >
question mark	?	3F	?	? ?
commercial at sign	@	40	@	@ @
capital A	A	41	A	A
capital B	B	42	B	B
capital C	C	43	C	C
capital D	D	44	D	D
capital E	E	45	E	E
capital F	F	46	F	F
capital G	G	47	G	G
capital H	H	48	H	H
capital I	I	49	I	I
capital J	J	4A	J	J
capital K	K	4B	K	K
capital L	L	4C	L	L
capital M	M	4D	M	M
capital N	N	4E	N	N
capital O	O	4F	O	O
capital P	P	50	P	P
capital Q	Q	51	Q	Q
capital R	R	52	R	R
capital S	S	53	S	S
capital T	T	54	T	T
capital U	U	55	U	U
capital V	V	56	V	V
capital W	W	57	W	W
capital X	X	58	X	X
capital Y	Y	59	Y	Y
capital Z	Z	5A	Z	Z
left square bracket	[5B	[[[
backslash, reverse soli	dus \	5C	\	\ \
right square bracket]	5D]]]
spacing circumflex acce	nt ^	5E	^	^ ^
spacing underscore, low	line, _	5F	_	_ _
horizontal bar				―
spacing grave accent,		60	`	` `
back apostrophe				
small a	a	61	a	a
small b	b	62	b	b
small c	c	63	c	c
small d	d	64	d	d
small e	e	65	e	e
small f	f	66	f	f
small g	g	67	g	g

small h		h	68	h	h
small i		i	69	i	i
small j		j	6A	j	j
small k		k	6B	k	k
small l		l	6C	l	l
small m		m	6D	m	m
small n		n	6E	n	n
small o		o	6F	o	o
small p		p	70	p	p
small q		q	71	q	q
small r		r	72	r	r
small s		s	73	s	s
small t		t	74	t	t
small u		u	75	u	u
small v		v	76	v	v
small w		w	77	w	w
small x		x	78	x	x
small y		y	79	y	y
small z		z	7A	z	z
left brace (curly brack	et)	{	7B	{	{ &lcurly;
vertical bar			7C	|	|
right brace (curly brack	ket)	}	7D	}	} &rcurly;
tilde accent		~	7E	~	~ ~
delete	DEL	^?	7F		
			80	€	
			81		
low left rising single	quote		82	‚	‚
small italic f, functio	n of,	f	83	ƒ	f
florin					
low left rising double	quote		84	„	„
low horizontal ellipsis			85	…	... &ldots;
dagger mark			86	†	†
double dagger mark			87	‡	‡
letter modifying circum	flex		88	ˆ	
per thousand (mille) si	gn		89	‰	‰
capital S caron or hace	k		8A	Š	Š
left single angle quote	mark		8B	‹	‹
(guillemet)					
capital OE ligature			8C	Œ	O
			8D		
			8E	Ž	
			8F		
			90		
left single quotation m	ark,		91	‘	‘
high right rising si	ngle quo	te			’
right single quote mark			92	’	’
left double quotation m	ark,		93	“	“
high right rising do	uble quo	te			”
right double quote mark			94	”	”

round filled bullet			95	•	•
en dash			96	–	– &endash;
em dash			97	—	— &emdash;
small spacing tilde acc	ent		98	˜	
trademark sign			99	™	™
small s caron or hacek			9A	š	š
right single angle quot (guillemet)	e mark		9B	›	›
small oe ligature			9C	œ	o
			9D		
			9E	ž	
capital Y dieresis or u	mlaut		9F	Ÿ	Ÿ
non-breaking space			A0	 	
inverted exclamation ma	rk	!	A1	¡	! !
cent sign		¢	A2	¢	¢ ¢
pound sterling sign		£	A3	£	£ £
general currency sign		¤	A4	¤	¤ ¤
yen sign		¥	A5	¥	¥ ¥
broken vertical bar			A6	¦	 &brkbar;
section sign		§	A7	§	§ §
spacing dieresis or uml	aut	¨	A8	¨	¨ ¨ ¨
copyright sign		©	A9	©	© ©
feminine ordinal indica	tor	a	AA	ª	a a
left (double) angle quo (guillemet)	te	«	AB	«	« «
logical not sign		¬	AC	¬	¬ ¬
soft hyphen		-	AD	­	- -
registered trademark si	gn	®	AE	®	® ®
spacing macron (long) a	ccent,	—	AF	¯	— — &hibar;
degree sign		°	B0	°	° °
plus-or-minus sign		±	B1	±	± ±
superscript 2		²	B2	²	² ²
superscript 3		³	B3	³	³ ³
spacing acute accent		´	B4	´	´ ´
micro sign		μ	B5	µ	μ μ
paragraph sign, pilcrow	sign	¶	B6	¶	¶ ¶
middle dot, centered do	t	·	B7	·	· ·
spacing cedilla		¸	B8	¸	¸ ¸
superscript 1		¹	B9	¹	¹ ¹
masculine ordinal indic	ator	º	BA	º	º º
right (double) angle qu (guillemet)	ote	»	BB	»	» »
fraction 1/4		¼	BC	¼	¼ ¼
fraction 1/2		½	BD	½	½ ½ ½

fraction 3/4		3	BE	¾	3 3
inverted question mark		?	BF	¿	? ?
capital A grave		A	C0	À	A A
capital A acute		Á	C1	Á	Á Á
capital A circumflex		Â	C2	Â	Â Â
capital A tilde		A	C3	Ã	A A
capital A dieresis or u	mlaut	Ä	C4	Ä	Ä Ä
capital A ring		A	C5	Å	A A
capital AE ligature		A	C6	Æ	A A
capital C cedilla		Ç	C7	Ç	Ç Ç
capital E grave		E	C8	È	E E
capital E acute		É	C9	É	É É
capital E circumflex		E	CA	Ê	E E
capital E dieresis or u	mlaut	Ë	CB	Ë	Ë Ë
capital I grave		I	CC	Ì	I I
capital I acute		Í	CD	Í	Í Í
capital I circumflex		Î	CE	Î	Î Î
capital I dieresis or u	mlaut	I	CF	Ï	I I
capital ETH		?	D0	Ð	? ?
capital N tilde		N	D1	Ñ	N N
capital O grave		O	D2	Ò	O O
capital O acute		Ó	D3	Ó	Ó Ó
capital O circumflex		Ô	D4	Ô	Ô Ô
capital O tilde		O	D5	Õ	O O
capital O dieresis or u	mlaut	Ö	D6	Ö	Ö Ö
multiplication sign		×	D7	×	× ×
capital O slash		O	D8	Ø	O O
capital U grave		U	D9	Ù	U U
capital U acute		Ú	DA	Ú	Ú Ú
capital U circumflex		U	DB	Û	U U
capital U dieresis or u	mlaut	Ü	DC	Ü	Ü Ü
capital Y acute		Ý	DD	Ý	Ý Ý
capital THORN		?	DE	Þ	? ?
small sharp s, sz ligat	ure	ß	DF	ß	ß ß
small a grave		a	E0	à	a a
small a acute		á	E1	á	á á
small a circumflex		â	E2	â	â â
small a tilde		a	E3	ã	a a
small a dieresis or uml	aut	ä	E4	ä	ä ä
small a ring		a	E5	å	a a
small ae ligature		a	E6	æ	a a
small c cedilla		ç	E7	ç	ç ç
small e grave		e	E8	è	e e
small e acute		é	E9	é	é é
small e circumflex		e	EA	ê	e e
small e dieresis or uml	aut	ë	EB	ë	ë ë
small i grave		i	EC	ì	i i
small i acute		í	ED	í	í í
small i circumflex		î	EE	î	î î
small i dieresis or uml	aut	i	EF	ï	i i

small eth		?	F0	ð	? ?
small n tilde		n	F1	ñ	n n
small o grave		o	F2	ò	o o
small o acute		ó	F3	ó	ó ó
small o circumflex		ô	F4	ô	ô ô
small o tilde		o	F5	õ	o o
small o dieresis or uml	aut	ö	F6	ö	ö ö
division sign		÷	F7	÷	÷ ÷
small o slash		o	F8	ø	o o
small u grave		u	F9	ù	u u
small u acute		ú	FA	ú	ú ú
small u circumflex		u	FB	û	u u
small u dieresis or uml	aut	ü	FC	ü	ü ü
small y acute		ý	FD	ý	ý ý
small thorn		?	FE	þ	?
small y dieresis or uml	aut	y	FF	ÿ	y y
for all			22		
there exists			24		
backward epsilon, such	that		27		϶
low asterisk math opera	tor		2A		
congruent			40		
capital Alpha2		A	41		&Agr;
capital Beta2		B	42		&Bgr;
capital Chi		X	43		&KHgr;
capital Delta			44		
capital Epsilon2		E	45		&Egr;
capital Phi			46		&Epsi; &PHgr;
capital Gamma			47		
capital Eta2		H	48		&EEgr;
capital Iota2		I	49		&lgr;
small script theta, curly theta			4A		ϑ &vtheta;
capital Kappa2		K	4B		&Kgr;
capital Lambda			4C		
capital Mu2		M	4D		&Mgr;
capital Nu2		N	4E		&Ngr;
capital Omicron2		O	4F		&Ogr;
capital Pi			50		

capital Theta		51	
capital Rho	P	52	&Rgr;
capital Sigma		53	
capital Tau2	T	54	&Tgr;
capital Upsilon	Y	55	ϒ
small final sigma		56	&sfgr; ς &vsigma;
capital Omega, ohm sign		57	Ω
capital Xi		58	
capital Psi		59	
capital Zeta2	Z	5A	&Zgr;
therefore, hence		5C	
perpendicular		5E	
radical extension, spacing overscore		60	
small alpha		61	
small beta		62	β
small chi		63	
small delta		64	
small script epsilon, curly epsilon		65	&vepsilon;
small (straight) phi		66	&phis;
small gamma		67	
small eta		68	
small iota		69	
small script phi, curly	phi	6A	ϕ ϕ
small kappa		6B	
small lambda		6C	
small mu	μ	6D	μ
small nu		6E	
small omicron2	o	6F	&ogr;
small pi		70	
small (straight) theta		71	&thetas;
small rho		72	
small sigma		73	
small tau		74	
small upsilon		75	υ
small omega pi, curly p	i	76	ϖ

small omega		77	
small xi		78	
small psi		79	
small zeta		7A	
similar sign, tilde operator		7E	~
capital Upsilon hook		A1	
prime, minute mark		A2	'
less-than-or-equal sign		A3	
fraction slash		A4	
infinity		A5	∞
small italic f, function of, florin	f	A6	f
club suit symbol		A7	♣
diamond suit symbol		A8	♦
heart suit symbol		A9	♥
spade suit symbol		AA	♠
horizontal (left-right) arrow	arrow	AB	-
left arrow		AC	←
up arrow		AD	↑
right arrow		AE	→
down arrow		AF	↓
double prime, second mark	rk	B2	”
greater-than-or-equal sign	ign	B3	
proportional to		B5	
partial differential, curly d	urly d	B6	∂
round filled bullet		B7	•
not-equal sign		B9	
identical to, equivalent	t	BA	
approximately equal		BB	\approx
low horizontal ellipsis		BC	\dots \&ldots
vertical arrow extension	n	BD	
horizontal arrow extension	ion	BE	
down and left arrow, carriage return arrow	w	BF	
aleph, first transfinite cardinal	rdinal	C0	\aleph
black-letter I, imaginary part of		C1	I
black-letter R, real part of	rt of	C2	R
Weierstrassian function	p	C3	P
circled multiplication sign	sign	C4	
circled plus sign		C5	
empty set		C6	\emptyset

set intersection		C7	
set union		C8	
proper superset of		C9	
superset-of-or-equal-to		CA	
not a subset of		CB	
proper subset of		CC	
subset-of-or-equal-to		CD	
element of, set members	hip	CE	
not an element of		CF	
angle		D0	
del operator, gradient,	nabla	D1	
trademark sign		D4	™
n-ary product operator		D5	
radical, square root		D6	
small middle dot,		D7	.
math dot operator			
logical and		D9	
logical or		DA	
horizontal double arrow		DB	
left double arrow		DC	
up double arrow		DD	
right double arrow		DE	
down double arrow		DF	
Special Characters			
Description	Char	Hex	
lozenge, total mark		E0	
left angle bracket		E1	<
n-ary summation operato	r	E5	
left parenthesis top		E6	
left parenthesis extens	ion	E7	
left parenthesis bottom		E8	
left bracket top (ceili	ng)	E9	
left bracket extension		EA	
left bracket bottom (fl	oor)	EB	
left brace top		EC	
left brace middle		ED	
left brace bottom		EE	
brace extension		EF	
right angle bracket		F1	>
integral sign		F2	
integral top		F3	
integral extension		F4	
integral bottom		F5	
right parenthesis top		F6	
right parenthesis exten	sion	F7	
right parenthesis botto	m	F8	

right bracket top (ceil	ing)	F9	
right bracket extension		FA	
right bracket bottom (f	loor)	FB	
right brace top		FC	
right brace middle		FD	
right brace bottom		FE	
spacing breve (short) a	ccent		˘
spacing caron accent			ˇ
centered horizontal ell	ipsis		&cdots;
double acute accent			˝
diagonal ellipsis			&dellip;
			&ddots;
spacing dot above accen	t		˙
array column fill ellip	sis		&dotfill;
small script l			ℓ
em space (the width of	an "m")		
en space (1/2 em space)			
small (straight) epsilo	n		ε
fraction 1/8			⅛
fraction 3/8			⅜
fraction 5/8			⅝
fraction 7/8			⅞
hair width space			 
if and only if (iff)			⇔
left determinant vertic	al bar		&ldet;
contains as a member			
spacing ogonek accent			˛
Planck's constant h ove	r 2 pi,		ℏ
small italic h slash	(bar)		
quad em space			&quad;
right determinant verti	cal bar		&rdet;
spacing ring above acce	nt		˚
soft break space			
since, because			∵
(inverted therefore)			
sung text sign, music n	ote		♪
thin space (1/6 em spac	e)		
small rho variant			ϱ
vertical ellipsis			⋮
			&vdots;
logarithmic function		log	&log;
sine function		sin	&sin;
hyperbolic tangent func	tion	tanh	&tanh;
etc.			