



UTF-8 Mathematical Operators

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Range: Decimal 8704-8959. Hex 2200-22FF.

If you want any of these characters displayed in HTML, you can use the HTML entity found in the table below.

If the character does not have an HTML entity, you can use the decimal (dec) or hexadecimal (hex) reference.

Example

```
<p>I will display &sum;</p>
<p>I will display &#8721;</p>
<p>I will display &#x2211;</p>
```

Will display as:

```
I will display ∑
I will display ∑
I will display ∑
```

[Try it Yourself »](#)

Older browsers may not support all the HTML5 entities in the table below. Chrome has good support. But (currently) only IE 11+ and Firefox 35+ support all the entities.

Char	Dec	Hex	Entity	Name	
∀	8704	2200	∀	FOR ALL	Try it
℄	8705	2201		COMPLEMENT	Try it
∂	8706	2202	∂	PARTIAL DIFFERENTIAL	Try it
∃	8707	2203	∃	THERE EXISTS	Try it
∄	8708	2204		THERE DOES NOT EXIST	Try it
∅	8709	2205	∅	EMPTY SET	Try it
Δ	8710	2206		INCREMENT	Try it
∇	8711	2207	∇	NABLA	Try it
∈	8712	2208	∈	ELEMENT OF	Try it
∉	8713	2209	∉	NOT AN ELEMENT OF	Try it
€	8714	220A		SMALL ELEMENT OF	Try it
⊃	8715	220B	∋	CONTAINS AS MEMBER	Try it
⊄	8716	220C		DOES NOT CONTAIN AS MEMBER	Try it
⊋	8717	220D		SMALL CONTAINS AS MEMBER	Try it
■	8718	220E		END OF PROOF	Try it
∏	8719	220F	∏	N-ARY PRODUCT	Try it
∐	8720	2210		N-ARY COPRODUCT	Try it
∑	8721	2211	∑	N-ARY SUMMATION	Try it
−	8722	2212	−	MINUS SIGN	Try it

\mp	8723	2213		MINUS-OR-PLUS SIGN	Try it
$\dot{+}$	8724	2214		DOT PLUS	Try it
$/$	8725	2215		DIVISION SLASH	Try it
\backslash	8726	2216		SET MINUS	Try it
$*$	8727	2217	$\∗$	ASTERISK OPERATOR	Try it
\circ	8728	2218		RING OPERATOR	Try it
\cdot	8729	2219		BULLET OPERATOR	Try it
$\sqrt{}$	8730	221A	$\√$	SQUARE ROOT	Try it
$\sqrt[3]{}$	8731	221B		CUBE ROOT	Try it
$\sqrt[4]{}$	8732	221C		FOURTH ROOT	Try it
\propto	8733	221D	$\∝$	PROPORTIONAL TO	Try it
∞	8734	221E	$\∞$	INFINITY	Try it
\perp	8735	221F		RIGHT ANGLE	Try it
\angle	8736	2220	$\∠$	ANGLE	Try it
\sphericalangle	8737	2221		MEASURED ANGLE	Try it
\sphericalangle	8738	2222		SPHERICAL ANGLE	Try it
\mid	8739	2223		DIVIDES	Try it
\nmid	8740	2224		DOES NOT DIVIDE	Try it
\parallel	8741	2225		PARALLEL TO	Try it
\nparallel	8742	2226		NOT PARALLEL TO	Try it
\wedge	8743	2227	$\∧$	LOGICAL AND	Try it
\vee	8744	2228	$\∨$	LOGICAL OR	Try it
\cap	8745	2229	$\∩$	INTERSECTION	Try it
\cup	8746	222A	$\∪$	UNION	Try it
\int	8747	222B	$\∫$	INTEGRAL	Try it

\iint	8748	222C		DOUBLE INTEGRAL	Try it
\iiint	8749	222D		TRIPLE INTEGRAL	Try it
\oint	8750	222E		CONTOUR INTEGRAL	Try it
\oiint	8751	222F		SURFACE INTEGRAL	Try it
\iiint	8752	2230		VOLUME INTEGRAL	Try it
$\int\limits_{\circlearrowright}$	8753	2231		CLOCKWISE INTEGRAL	Try it
$\oint\limits_{\circlearrowright}$	8754	2232		CLOCKWISE CONTOUR INTEGRAL	Try it
$\oint\limits_{\circlearrowleft}$	8755	2233		ANTICLOCKWISE CONTOUR INTEGRAL	Try it
\therefore	8756	2234	∴	THEREFORE	Try it
\because	8757	2235		BECAUSE	Try it
\colon	8758	2236		RATIO	Try it
\propto	8759	2237		PROPORTION	Try it
$\dot{-}$	8760	2238		DOT MINUS	Try it
$\text{--}\colon$	8761	2239		EXCESS	Try it
$\text{--}\text{--}\text{--}$	8762	223A		GEOMETRIC PROPORTION	Try it
\sim	8763	223B		HOMOTHETIC	Try it
\sim	8764	223C	∼	TILDE OPERATOR	Try it
\smile	8765	223D		REVERSED TILDE	Try it
~	8766	223E		INVERTED LAZY S	Try it
\sim	8767	223F		SINE WAVE	Try it
\wr	8768	2240		WREATH PRODUCT	Try it
\nexists	8769	2241		NOT TILDE	Try it
$\text{--}\sim$	8770	2242		MINUS TILDE	Try it
\approx	8771	2243		ASYMPTOTICALLY EQUAL TO	Try it
$\not\approx$	8772	2244		NOT ASYMPTOTICALLY EQUAL TO	Try it

\approx	8773	2245	≅	APPROXIMATELY EQUAL TO	Try it
$\approx\!\!\!\not\approx$	8774	2246		APPROXIMATELY BUT NOT ACTUALLY EQUAL TO	Try it
\neq	8775	2247		NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO	Try it
\simeq	8776	2248	≈	ALMOST EQUAL TO	Try it
\napprox	8777	2249		NOT ALMOST EQUAL TO	Try it
$\simeq\!\!\!\approx$	8778	224A		ALMOST EQUAL OR EQUAL TO	Try it
$\approx\!\!\!\approx\!\!\!\approx$	8779	224B		TRIPLE TILDE	Try it
\equiv	8780	224C		ALL EQUAL TO	Try it
\asymp	8781	224D		EQUIVALENT TO	Try it
\cong	8782	224E		GEOMETRICALLY EQUIVALENT TO	Try it
\ncong	8783	224F		DIFFERENCE BETWEEN	Try it
\doteq	8784	2250		APPROACHES THE LIMIT	Try it
\doteqdot	8785	2251		GEOMETRICALLY EQUAL TO	Try it
$\doteq\!\!\!\approx$	8786	2252		APPROXIMATELY EQUAL TO OR THE IMAGE OF	Try it
$\doteq\!\!\!\approx\!\!\!\approx$	8787	2253		IMAGE OF OR APPROXIMATELY EQUAL TO	Try it
$\colon\equiv$	8788	2254		COLON EQUALS	Try it
$\equiv\!\!\!\colon$	8789	2255		EQUALS COLON	Try it
\Rrightarrow	8790	2256		RING IN EQUAL TO	Try it
$\Rrightarrow\!\!\!\approx$	8791	2257		RING EQUAL TO	Try it
$\Rrightarrow\!\!\!\approx\!\!\!\approx$	8792	2258		CORRESPONDS TO	Try it
\triangleapprox	8793	2259		ESTIMATES	Try it
\triangleq	8794	225A		EQUIANGULAR TO	Try it
$\star\!\!\!\equiv$	8795	225B		STAR EQUALS	Try it

Δ	8796	225C		DELTA EQUAL TO	Try it
$\stackrel{\text{def}}{=}$	8797	225D		EQUAL TO BY DEFINITION	Try it
$\stackrel{\text{m}}{=}$	8798	225E		MEASURED BY	Try it
$\stackrel{?}{=}$	8799	225F		QUESTIONED EQUAL TO	Try it
\neq	8800	2260	≠	NOT EQUAL TO	Try it
\equiv	8801	2261	≡	IDENTICAL TO	Try it
\ncong	8802	2262		NOT IDENTICAL TO	Try it
\equiv	8803	2263		STRICTLY EQUIVALENT TO	Try it
\leq	8804	2264	≤	LESS-THAN OR EQUAL TO	Try it
\geq	8805	2265	≥	GREATER-THAN OR EQUAL TO	Try it
\lesseqgtr	8806	2266		LESS-THAN OVER EQUAL TO	Try it
\gtrless	8807	2267		GREATER-THAN OVER EQUAL TO	Try it
\nlessgtr	8808	2268		LESS-THAN BUT NOT EQUAL TO	Try it
\ngtrless	8809	2269		GREATER-THAN BUT NOT EQUAL TO	Try it
\ll	8810	226A		MUCH LESS-THAN	Try it
\gg	8811	226B		MUCH GREATER-THAN	Try it
\between	8812	226C		BETWEEN	Try it
\nless	8813	226D		NOT EQUIVALENT TO	Try it
\nlessgtr	8814	226E		NOT LESS-THAN	Try it
\ngtr	8815	226F		NOT GREATER-THAN	Try it
\nlessgtr	8816	2270		NEITHER LESS-THAN NOR EQUAL TO	Try it
\ngtrless	8817	2271		NEITHER GREATER-THAN NOR EQUAL TO	Try it
\lesseqgtr	8818	2272		LESS-THAN OR EQUIVALENT TO	Try it
\gtrless	8819	2273		GREATER-THAN OR EQUIVALENT TO	Try it
\nlessgtr	8820	2274		NEITHER LESS-THAN NOR EQUIVALENT TO	Try it

\nlessgtr	8821	2275		NEITHER GREATER-THAN NOR EQUIVALENT TO	Try it
\lessgtr	8822	2276		LESS-THAN OR GREATER-THAN	Try it
\gtrless	8823	2277		GREATER-THAN OR LESS-THAN	Try it
\nlessgtr	8824	2278		NEITHER LESS-THAN NOR GREATER-THAN	Try it
\nlessgtr	8825	2279		NEITHER GREATER-THAN NOR LESS-THAN	Try it
\prec	8826	227A		PRECEDES	Try it
\succ	8827	227B		SUCCEEDS	Try it
\preceq	8828	227C		PRECEDES OR EQUAL TO	Try it
\succeq	8829	227D		SUCCEEDS OR EQUAL TO	Try it
\preceq	8830	227E		PRECEDES OR EQUIVALENT TO	Try it
\succeq	8831	227F		SUCCEEDS OR EQUIVALENT TO	Try it
\nprec	8832	2280		DOES NOT PRECEDE	Try it
\nsucc	8833	2281		DOES NOT SUCCEED	Try it
\subset	8834	2282	⊂	SUBSET OF	Try it
\supset	8835	2283	⊃	SUPERSET OF	Try it
\nsubset	8836	2284	⊅	NOT A SUBSET OF	Try it
\nsupset	8837	2285		NOT A SUPERSET OF	Try it
\subseteq	8838	2286	⊆	SUBSET OF OR EQUAL TO	Try it
\supseteq	8839	2287	⊇	SUPERSET OF OR EQUAL TO	Try it
\nsubseteq	8840	2288		NEITHER A SUBSET OF NOR EQUAL TO	Try it
\nsupseteq	8841	2289		NEITHER A SUPERSET OF NOR EQUAL TO	Try it
\subsetneq	8842	228A		SUBSET OF WITH NOT EQUAL TO	Try it
\supsetneq	8843	228B		SUPERSET OF WITH NOT EQUAL TO	Try it
\mathbb{U}	8844	228C		MULTISET	Try it

⋈	8845	228D		MULTISET MULTIPLICATION	Try it
⋈	8846	228E		MULTISET UNION	Try it
⊐	8847	228F		SQUARE IMAGE OF	Try it
⊑	8848	2290		SQUARE ORIGINAL OF	Try it
⊒	8849	2291		SQUARE IMAGE OF OR EQUAL TO	Try it
⊓	8850	2292		SQUARE ORIGINAL OF OR EQUAL TO	Try it
⊔	8851	2293		SQUARE CAP	Try it
⊕	8852	2294		SQUARE CUP	Try it
⊕	8853	2295	⊕	CIRCLED PLUS	Try it
⊖	8854	2296		CIRCLED MINUS	Try it
⊗	8855	2297	⊗	CIRCLED TIMES	Try it
⊘	8856	2298		CIRCLED DIVISION SLASH	Try it
⊙	8857	2299		CIRCLED DOT OPERATOR	Try it
⊚	8858	229A		CIRCLED RING OPERATOR	Try it
⊛	8859	229B		CIRCLED ASTERISK OPERATOR	Try it
⊜	8860	229C		CIRCLED EQUALS	Try it
⊝	8861	229D		CIRCLED DASH	Try it
⊞	8862	229E		SQUARED PLUS	Try it
⊟	8863	229F		SQUARED MINUS	Try it
⊠	8864	22A0		SQUARED TIMES	Try it
⊡	8865	22A1		SQUARED DOT OPERATOR	Try it
⊢	8866	22A2		RIGHT TACK	Try it
⊣	8867	22A3		LEFT TACK	Try it
⊤	8868	22A4		DOWN TACK	Try it
⊥	8869	22A5	⊥	UP TACK	Try it

\vdash	8870	22A6	ASSERTION	Try it
\models	8871	22A7	MODELS	Try it
\vDash	8872	22A8	TRUE	Try it
\Vdash	8873	22A9	FORCES	Try it
\equiv	8874	22AA	TRIPLE VERTICAL BAR RIGHT TURNSTILE	Try it
\Vdash	8875	22AB	DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE	Try it
\nVdash	8876	22AC	DOES NOT PROVE	Try it
\nmodels	8877	22AD	NOT TRUE	Try it
\nVdash	8878	22AE	DOES NOT FORCE	Try it
\nVdash	8879	22AF	NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE	Try it
\preceq	8880	22B0	PRECEDES UNDER RELATION	Try it
\succeq	8881	22B1	SUCCEEDS UNDER RELATION	Try it
\triangleleft	8882	22B2	NORMAL SUBGROUP OF	Try it
\triangleright	8883	22B3	CONTAINS AS NORMAL SUBGROUP	Try it
\trianglelefteq	8884	22B4	NORMAL SUBGROUP OF OR EQUAL TO	Try it
\trianglerighteq	8885	22B5	CONTAINS AS NORMAL SUBGROUP OR EQUAL TO	Try it
\circ	8886	22B6	ORIGINAL OF	Try it
\bullet	8887	22B7	IMAGE OF	Try it
\multimap	8888	22B8	MULTIMAP	Try it
\dagger	8889	22B9	HERMITIAN CONJUGATE MATRIX	Try it
\intercal	8890	22BA	INTERCALATE	Try it
$\underline{\vee}$	8891	22BB	XOR	Try it
$\overline{\wedge}$	8892	22BC	NAND	Try it

∇	8893	22BD		NOR	Try it
\rceil	8894	22BE		RIGHT ANGLE WITH ARC	Try it
\triangle	8895	22BF		RIGHT TRIANGLE	Try it
\bigwedge	8896	22C0		N-ARY LOGICAL AND	Try it
\bigvee	8897	22C1		N-ARY LOGICAL OR	Try it
\bigcap	8898	22C2		N-ARY INTERSECTION	Try it
\bigcup	8899	22C3		N-ARY UNION	Try it
\diamond	8900	22C4		DIAMOND OPERATOR	Try it
\cdot	8901	22C5	$\⋅$	DOT OPERATOR	Try it
\star	8902	22C6		STAR OPERATOR	Try it
\div	8903	22C7		DIVISION TIMES	Try it
\bowtie	8904	22C8		BOWTIE	Try it
\ltimes	8905	22C9		LEFT NORMAL FACTOR SEMIDIRECT PRODUCT	Try it
\rtimes	8906	22CA		RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT	Try it
\lhd	8907	22CB		LEFT SEMIDIRECT PRODUCT	Try it
\rhd	8908	22CC		RIGHT SEMIDIRECT PRODUCT	Try it
\approx	8909	22CD		REVERSED TILDE EQUALS	Try it
\curlyvee	8910	22CE		CURLY LOGICAL OR	Try it
\curlywedge	8911	22CF		CURLY LOGICAL AND	Try it
\Subset	8912	22D0		DOUBLE SUBSET	Try it
\Supset	8913	22D1		DOUBLE SUPERSET	Try it
\Mho	8914	22D2		DOUBLE INTERSECTION	Try it
\Updownarrow	8915	22D3		DOUBLE UNION	Try it
\pitchfork	8916	22D4		PITCHFORK	Try it

#	8917	22D5	EQUAL AND PARALLEL TO	Try it
<.	8918	22D6	LESS-THAN WITH DOT	Try it
>.	8919	22D7	GREATER-THAN WITH DOT	Try it
<<<	8920	22D8	VERY MUCH LESS-THAN	Try it
>>>	8921	22D9	VERY MUCH GREATER-THAN	Try it
≤	8922	22DA	LESS-THAN EQUAL TO OR GREATER-THAN	Try it
≥	8923	22DB	GREATER-THAN EQUAL TO OR LESS-THAN	Try it
≡	8924	22DC	EQUAL TO OR LESS-THAN	Try it
≧	8925	22DD	EQUAL TO OR GREATER-THAN	Try it
⋈	8926	22DE	EQUAL TO OR PRECEDES	Try it
⋉	8927	22DF	EQUAL TO OR SUCCEEDS	Try it
⋊	8928	22E0	DOES NOT PRECEDE OR EQUAL	Try it
⋋	8929	22E1	DOES NOT SUCCEED OR EQUAL	Try it
⋌	8930	22E2	NOT SQUARE IMAGE OF OR EQUAL TO	Try it
⋍	8931	22E3	NOT SQUARE ORIGINAL OF OR EQUAL TO	Try it
⋎	8932	22E4	SQUARE IMAGE OF OR NOT EQUAL TO	Try it
⋏	8933	22E5	SQUARE ORIGINAL OF OR NOT EQUAL TO	Try it
⋐	8934	22E6	LESS-THAN BUT NOT EQUIVALENT TO	Try it
⋑	8935	22E7	GREATER-THAN BUT NOT EQUIVALENT TO	Try it
⋒	8936	22E8	PRECEDES BUT NOT EQUIVALENT TO	Try it
⋓	8937	22E9	SUCCEEDS BUT NOT EQUIVALENT TO	Try it
⋔	8938	22EA	NOT NORMAL SUBGROUP OF	Try it
⋕	8939	22EB	DOES NOT CONTAIN AS NORMAL SUBGROUP	Try it
⋖	8940	22EC	NOT NORMAL SUBGROUP OF OR EQUAL TO	Try it
⋗	8941	22ED	DOES NOT CONTAIN AS NORMAL SUBGROUP OR	

			EQUAL	Try it
⋮	8942	22EE	VERTICAL ELLIPSIS	Try it
⋯	8943	22EF	MIDLINE HORIZONTAL ELLIPSIS	Try it
⋱	8944	22F0	UP RIGHT DIAGONAL ELLIPSIS	Try it
⋰	8945	22F1	DOWN RIGHT DIAGONAL ELLIPSIS	Try it
⋈	8946	22F2	ELEMENT OF WITH LONG HORIZONTAL STROKE	Try it
⋉	8947	22F3	ELEMENT OF WITH VERTICAL BAR AT END OF HORIZONTAL STROKE	Try it
⋊	8948	22F4	SMALL ELEMENT OF WITH VERTICAL BAR AT END OF HORIZONTAL STROKE	Try it
⋋	8949	22F5	ELEMENT OF WITH DOT ABOVE	Try it
⋌	8950	22F6	ELEMENT OF WITH OVERBAR	Try it
⋍	8951	22F7	SMALL ELEMENT OF WITH OVERBAR	Try it
⋎	8952	22F8	ELEMENT OF WITH UNDERBAR	Try it
⋏	8953	22F9	ELEMENT OF WITH TWO HORIZONTAL STROKES	Try it
⋐	8954	22FA	CONTAINS WITH LONG HORIZONTAL STROKE	Try it
⋑	8955	22FB	CONTAINS WITH VERTICAL BAR AT END OF HORIZONTAL STROKE	Try it
⋒	8956	22FC	SMALL CONTAINS WITH VERTICAL BAR AT END OF HORIZONTAL STROKE	Try it
⋓	8957	22FD	CONTAINS WITH OVERBAR	Try it
⋔	8958	22FE	SMALL CONTAINS WITH OVERBAR	Try it
⋕	8959	22FF	Z NOTATION BAG MEMBERSHIP	Try it