

## Supplemental Arrows-B

Range: 2900–297F

This file contains an excerpt from the character code tables and list of character names for *The Unicode Standard, Version 7.0*

This file may be changed at any time without notice to reflect errata or other updates to the Unicode Standard. See <http://www.unicode.org/errata/> for an up-to-date list of errata.

See <http://www.unicode.org/charts/> for access to a complete list of the latest character code charts.  
See <http://www.unicode.org/charts/PDF/Unicode-7.0/> for charts showing only the characters added in Unicode 7.0.  
See <http://www.unicode.org/Public/7.0.0/charts/> for a complete archived file of character code charts for Unicode 7.0.

### Disclaimer

These charts are provided as the online reference to the character contents of the Unicode Standard, Version 7.0 but do not provide all the information needed to fully support individual scripts using the Unicode Standard. For a complete understanding of the use of the characters contained in this file, please consult the appropriate sections of The Unicode Standard, Version 7.0, online at <http://www.unicode.org/versions/Unicode7.0.0/>, as well as Unicode Standard Annexes #9, #11, #14, #15, #24, #29, #31, #34, #38, #41, #42, #44, and #45, the other Unicode Technical Reports and Standards, and the Unicode Character Database, which are available online.

See <http://www.unicode.org/ucd/> and <http://www.unicode.org/reports/>

A thorough understanding of the information contained in these additional sources is required for a successful implementation.

### Fonts

The shapes of the reference glyphs used in these code charts are not prescriptive. Considerable variation is to be expected in actual fonts. The particular fonts used in these charts were provided to the Unicode Consortium by a number of different font designers, who own the rights to the fonts.

See <http://www.unicode.org/charts/fonts.html> for a list.

### Terms of Use

































































































































You may freely use these code charts for personal or internal business uses only. You may not incorporate them either wholly or in part into any product or publication, or otherwise distribute them without express written permission from the Unicode Consortium. However, you may provide links to these charts.

The fonts and font data used in production of these code charts may NOT be extracted, or used in any other way in any product or publication, without permission or license granted by the typeface owner(s).

The Unicode Consortium is not liable for errors or omissions in this file or the standard itself. Information on characters added to the Unicode Standard since the publication of the most recent version of the Unicode Standard, as well as on characters currently being considered for addition to the Unicode Standard can be found on the Unicode web site.

See <http://www.unicode.org/pending/pending.html> and <http://www.unicode.org/alloc/Pipeline.html>.

Copyright © 1991-2014 Unicode, Inc. All rights reserved.

	290	291	292	293	294	295	296	297
0	 2900	 2910	 2920	 2930	 2940	 2950	 2960	 2970
1	 2901	 2911	 2921	 2931	 2941	 2951	 2961	 2971
2	 2902	 2912	 2922	 2932	 2942	 2952	 2962	 2972
3	 2903	 2913	 2923	 2933	 2943	 2953	 2963	 2973
4	 2904	 2914	 2924	 2934	 2944	 2954	 2964	 2974
5	 2905	 2915	 2925	 2935	 2945	 2955	 2965	 2975
6	 2906	 2916	 2926	 2936	 2946	 2956	 2966	 2976
7	 2907	 2917	 2927	 2937	 2947	 2957	 2967	 2977
8	 2908	 2918	 2928	 2938	 2948	 2958	 2968	 2978
9	 2909	 2919	 2929	 2939	 2949	 2959	 2969	 2979
A	 290A	 291A	 292A	 293A	 294A	 295A	 296A	 297A
B	 290B	 291B	 292B	 293B	 294B	 295B	 296B	 297B
C	 290C	 291C	 292C	 293C	 294C	 295C	 296C	 297C
D	 290D	 291D	 292D	 293D	 294D	 295D	 296D	 297D
E	 290E	 291E	 292E	 293E	 294E	 295E	 296E	 297E
F	 290F	 291F	 292F	 293F	 294F	 295F	 296F	 297F

**Miscellaneous arrows**

- 2900 ⇨ RIGHTWARDS TWO-HEADED ARROW WITH VERTICAL STROKE  
= z notation partial surjection  
→ 2B34 ⇐ leftwards two-headed arrow with vertical stroke
- 2901 ⇨ RIGHTWARDS TWO-HEADED ARROW WITH DOUBLE VERTICAL STROKE  
= z notation finite surjection  
→ 2B35 ⇐ leftwards two-headed arrow with double vertical stroke
- 2902 ⇐ LEFTWARDS DOUBLE ARROW WITH VERTICAL STROKE
- 2903 ⇨ RIGHTWARDS DOUBLE ARROW WITH VERTICAL STROKE
- 2904 ⇐ LEFT RIGHT DOUBLE ARROW WITH VERTICAL STROKE
- 2905 ↗ RIGHTWARDS TWO-HEADED ARROW FROM BAR  
= maps to  
→ 2B36 ⇐ leftwards two-headed arrow from bar
- 2906 ⇐ LEFTWARDS DOUBLE ARROW FROM BAR  
= maps from  
→ 27FB ⇐ long leftwards arrow from bar
- 2907 ⇨ RIGHTWARDS DOUBLE ARROW FROM BAR  
= maps to  
→ 27FC ⇨ long rightwards arrow from bar
- 2908 ↓ DOWNWARDS ARROW WITH HORIZONTAL STROKE
- 2909 ↑ UPWARDS ARROW WITH HORIZONTAL STROKE
- 290A ↑↑ UPWARDS TRIPLE ARROW  
→ 21D1 ↑↑ upwards double arrow  
→ 27F0 ↑↑↑ upwards quadruple arrow
- 290B ↓↓ DOWNWARDS TRIPLE ARROW  
→ 21D3 ↓↓ downwards double arrow  
→ 27F1 ↓↓↓ downwards quadruple arrow
- 290C ⇐⇐ LEFTWARDS DOUBLE DASH ARROW
- 290D ⇨⇨ RIGHTWARDS DOUBLE DASH ARROW
- 290E ⇐⇐⇐ LEFTWARDS TRIPLE DASH ARROW
- 290F ⇨⇨⇨ RIGHTWARDS TRIPLE DASH ARROW
- 2910 ⇨⇨⇨ RIGHTWARDS TWO-HEADED TRIPLE DASH ARROW  
→ 2B37 ⇐⇐⇐ leftwards two-headed triple dash arrow
- 2911 →→ RIGHTWARDS ARROW WITH DOTTED STEM  
→ 2B38 ⇐⇐ leftwards arrow with dotted stem
- 2912 ↑ UPWARDS ARROW TO BAR
- 2913 ↓ DOWNWARDS ARROW TO BAR
- 2914 ⇨ RIGHTWARDS ARROW WITH TAIL WITH VERTICAL STROKE  
= z notation partial injection  
→ 2B39 ⇐ leftwards arrow with tail with vertical stroke
- 2915 ⇨ RIGHTWARDS ARROW WITH TAIL WITH DOUBLE VERTICAL STROKE  
= z notation finite injection  
→ 2B3A ⇐ leftwards arrow with tail with double vertical stroke
- 2916 ⇨ RIGHTWARDS TWO-HEADED ARROW WITH TAIL  
= bijective mapping  
= z notation bijection  
→ 2B3B ⇐ leftwards two-headed arrow with tail

- 2917 ⇨ RIGHTWARDS TWO-HEADED ARROW WITH TAIL WITH VERTICAL STROKE  
= z notation surjective injection  
→ 2B3C ⇐ leftwards two-headed arrow with tail with vertical stroke
- 2918 ⇨ RIGHTWARDS TWO-HEADED ARROW WITH TAIL WITH DOUBLE VERTICAL STROKE  
= z notation finite surjective injection  
→ 2B3D ⇐ leftwards two-headed arrow with tail with double vertical stroke

**Arrow tails**

- 2919 ↗ LEFTWARDS ARROW-TAIL
- 291A ↘ RIGHTWARDS ARROW-TAIL
- 291B ⇐ LEFTWARDS DOUBLE ARROW-TAIL
- 291C ⇨ RIGHTWARDS DOUBLE ARROW-TAIL

**Miscellaneous arrows**

- 291D ⇐ LEFTWARDS ARROW TO BLACK DIAMOND
- 291E ⇨ RIGHTWARDS ARROW TO BLACK DIAMOND
- 291F ⇐ LEFTWARDS ARROW FROM BAR TO BLACK DIAMOND
- 2920 ⇨ RIGHTWARDS ARROW FROM BAR TO BLACK DIAMOND
- 2921 ↖ NORTH WEST AND SOUTH EAST ARROW
- 2922 ↗ NORTH EAST AND SOUTH WEST ARROW
- 2923 ↖ NORTH WEST ARROW WITH HOOK
- 2924 ↗ NORTH EAST ARROW WITH HOOK
- 2925 ↘ SOUTH EAST ARROW WITH HOOK
- 2926 ↙ SOUTH WEST ARROW WITH HOOK

**Crossing arrows for knot theory**

- 2927 ✕ NORTH WEST ARROW AND NORTH EAST ARROW
- 2928 ✕ NORTH EAST ARROW AND SOUTH EAST ARROW
- 2929 ✕ SOUTH EAST ARROW AND SOUTH WEST ARROW
- 292A ✕ SOUTH WEST ARROW AND NORTH WEST ARROW
- 292B ✕ RISING DIAGONAL CROSSING FALLING DIAGONAL
- 292C ✕ FALLING DIAGONAL CROSSING RISING DIAGONAL  
→ 26CC ✕ crossing lanes
- 292D ✕ SOUTH EAST ARROW CROSSING NORTH EAST ARROW
- 292E ✕ NORTH EAST ARROW CROSSING SOUTH EAST ARROW
- 292F ✕ FALLING DIAGONAL CROSSING NORTH EAST ARROW
- 2930 ✕ RISING DIAGONAL CROSSING SOUTH EAST ARROW
- 2931 ✕ NORTH EAST ARROW CROSSING NORTH WEST ARROW
- 2932 ✕ NORTH WEST ARROW CROSSING NORTH EAST ARROW

**Miscellaneous curved arrows**

- 2933 ↪ WAVE ARROW POINTING DIRECTLY RIGHT  
→ 219D ↪ rightwards wave arrow  
→ 2B3F ⇐ wave arrow pointing directly left
- 2934 ↪ ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS  
~ 2934 FE0E text style  
~ 2934 FE0F emoji style

- 2935 ↷ ARROW POINTING RIGHTWARDS THEN CURVING DOWNWARDS  
~ 2935 FE0E text style  
~ 2935 FE0F emoji style
- 2936 ↶ ARROW POINTING DOWNWARDS THEN CURVING LEFTWARDS
- 2937 ↵ ARROW POINTING DOWNWARDS THEN CURVING RIGHTWARDS
- 2938 ↷ RIGHT-SIDE ARC CLOCKWISE ARROW
- 2939 ↶ LEFT-SIDE ARC ANTICLOCKWISE ARROW
- 293A ↷ TOP ARC ANTICLOCKWISE ARROW
- 293B ↶ BOTTOM ARC ANTICLOCKWISE ARROW
- 293C ↷ TOP ARC CLOCKWISE ARROW WITH MINUS
- 293D ↶ TOP ARC ANTICLOCKWISE ARROW WITH PLUS
- 293E ↷ LOWER RIGHT SEMICIRCULAR CLOCKWISE ARROW
- 293F ↶ LOWER LEFT SEMICIRCULAR ANTICLOCKWISE ARROW
- 2940 ↶ ANTICLOCKWISE CLOSED CIRCLE ARROW  
→ 20DA ☹ combining anticlockwise ring overlay
- 2941 ↷ CLOCKWISE CLOSED CIRCLE ARROW  
→ 20D9 ☺ combining clockwise ring overlay

**Arrows combined with operators**

- 2942 ⇄ RIGHTWARDS ARROW ABOVE SHORT LEFTWARDS ARROW
- 2943 ⇄ LEFTWARDS ARROW ABOVE SHORT RIGHTWARDS ARROW
- 2944 ⇄ SHORT RIGHTWARDS ARROW ABOVE LEFTWARDS ARROW
- 2945 ⇄ RIGHTWARDS ARROW WITH PLUS BELOW
- 2946 ⇄ LEFTWARDS ARROW WITH PLUS BELOW
- 2947 ⇄ RIGHTWARDS ARROW THROUGH X  
→ 2B3E ⇄ leftwards arrow through x
- 2948 ⇄ LEFT RIGHT ARROW THROUGH SMALL CIRCLE
- 2949 ↗ UPWARDS TWO-HEADED ARROW FROM SMALL CIRCLE

**Double-barbed harpoons**

- 294A ↗ LEFT BARB UP RIGHT BARB DOWN HARPOON
- 294B ↘ LEFT BARB DOWN RIGHT BARB UP HARPOON
- 294C ↗ UP BARB RIGHT DOWN BARB LEFT HARPOON
- 294D ↘ UP BARB LEFT DOWN BARB RIGHT HARPOON
- 294E ↗ LEFT BARB UP RIGHT BARB UP HARPOON
- 294F ↘ UP BARB RIGHT DOWN BARB RIGHT HARPOON
- 2950 ↘ LEFT BARB DOWN RIGHT BARB DOWN HARPOON
- 2951 ↗ UP BARB LEFT DOWN BARB LEFT HARPOON

**Modified harpoons**

- 2952 ↗ LEFTWARDS HARPOON WITH BARB UP TO BAR
- 2953 ↘ RIGHTWARDS HARPOON WITH BARB UP TO BAR
- 2954 ↗ UPWARDS HARPOON WITH BARB RIGHT TO BAR
- 2955 ↘ DOWNWARDS HARPOON WITH BARB RIGHT TO BAR
- 2956 ↗ LEFTWARDS HARPOON WITH BARB DOWN TO BAR
- 2957 ↘ RIGHTWARDS HARPOON WITH BARB DOWN TO BAR
- 2958 ↗ UPWARDS HARPOON WITH BARB LEFT TO BAR
- 2959 ↘ DOWNWARDS HARPOON WITH BARB LEFT TO BAR
- 295A ↗ LEFTWARDS HARPOON WITH BARB UP FROM BAR

- 295B ↗ RIGHTWARDS HARPOON WITH BARB UP FROM BAR
- 295C ↘ UPWARDS HARPOON WITH BARB RIGHT FROM BAR
- 295D ↘ DOWNWARDS HARPOON WITH BARB RIGHT FROM BAR
- 295E ↗ LEFTWARDS HARPOON WITH BARB DOWN FROM BAR
- 295F ↗ RIGHTWARDS HARPOON WITH BARB DOWN FROM BAR
- 2960 ↘ UPWARDS HARPOON WITH BARB LEFT FROM BAR
- 2961 ↘ DOWNWARDS HARPOON WITH BARB LEFT FROM BAR

**Paired harpoons**

- 2962 ⇄ LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS HARPOON WITH BARB DOWN
- 2963 ⇄ UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS HARPOON WITH BARB RIGHT
- 2964 ⇄ RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHTWARDS HARPOON WITH BARB DOWN
- 2965 ⇄ DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWNWARDS HARPOON WITH BARB RIGHT
- 2966 ⇄ LEFTWARDS HARPOON WITH BARB UP ABOVE RIGHTWARDS HARPOON WITH BARB UP
- 2967 ⇄ LEFTWARDS HARPOON WITH BARB DOWN ABOVE RIGHTWARDS HARPOON WITH BARB DOWN
- 2968 ⇄ RIGHTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS HARPOON WITH BARB UP
- 2969 ⇄ RIGHTWARDS HARPOON WITH BARB DOWN ABOVE LEFTWARDS HARPOON WITH BARB DOWN
- 296A ⇄ LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH
- 296B ⇄ LEFTWARDS HARPOON WITH BARB DOWN BELOW LONG DASH
- 296C ⇄ RIGHTWARDS HARPOON WITH BARB UP ABOVE LONG DASH
- 296D ⇄ RIGHTWARDS HARPOON WITH BARB DOWN BELOW LONG DASH
- 296E ⇄ UPWARDS HARPOON WITH BARB LEFT BESIDE DOWNWARDS HARPOON WITH BARB RIGHT
- 296F ⇄ DOWNWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS HARPOON WITH BARB RIGHT

**Miscellaneous arrow**

- 2970 ⇄ RIGHT DOUBLE ARROW WITH ROUNDED HEAD  
→ 2283 ▷ superset of

**Arrows combined with relations**

- 2971 ⇄ EQUALS SIGN ABOVE RIGHTWARDS ARROW  
→ 2B40 ⇄ equals sign above leftwards arrow
- 2972 ⇄ TILDE OPERATOR ABOVE RIGHTWARDS ARROW  
→ 2B41 ⇄ reverse tilde operator above leftwards arrow
- 2973 ⇄ LEFTWARDS ARROW ABOVE TILDE OPERATOR  
→ 2B4C ⇄ rightwards arrow above reverse tilde operator
- 2974 ⇄ RIGHTWARDS ARROW ABOVE TILDE OPERATOR  
→ 2B4B ⇄ leftwards arrow above reverse tilde operator

- 2975  $\Rightarrow$  RIGHTWARDS ARROW ABOVE ALMOST EQUAL TO  
 → 2B42  $\Leftarrow$  leftwards arrow above reverse almost equal to
- 2976  $\Leftarrow$  LESS-THAN ABOVE LEFTWARDS ARROW
- 2977  $\Leftarrow$  LEFTWARDS ARROW THROUGH LESS-THAN  
 → 2B43  $\Rightarrow$  rightwards arrow through greater-than
- 2978  $\Rightarrow$  GREATER-THAN ABOVE RIGHTWARDS ARROW
- 2979  $\subset$  SUBSET ABOVE RIGHTWARDS ARROW
- 297A  $\Leftarrow$  LEFTWARDS ARROW THROUGH SUBSET  
 → 2B44  $\Rightarrow$  rightwards arrow through superset
- 297B  $\supset$  SUPerset ABOVE LEFTWARDS ARROW

**Fish tails**

- 297C  $\leftarrow$  LEFT FISH TAIL
- 297D  $\rightarrow$  RIGHT FISH TAIL
- 297E  $\uparrow$  UP FISH TAIL
- 297F  $\downarrow$  DOWN FISH TAIL