

** The Extended Ideographic Description Language (IDLx) **

	Unicode Name	A	Name	B	B	Examples
a-1	left to right	☐	left-right	⊕	⊖	潰:☐彳貫
a-2	above to below	☐	top-down	⊖	⊕	稟:☐𣎵木
a-3	surround from bottom left	☐	L-shaped, bottom first	⊕	⊖	毯:☐毛炎
a-4			L-shaped, top first	⊖	⊕	廷:☐壬乚
a-5	surround from upper left	☐	Γ-shaped	⊖	⊕	慮:☐戠思
a-6	surround from upper right	☐	package	⊕	⊖	截:☐戔隹
a-7	/	/	surround from bottom right	⊕	⊖	弋:☐一弋
a-8	surround from below	☐	plug	⊕	⊖	函:☐𠂇口
a-9	surround from left	☐	C-shaped	⊖	⊕	玉:☐王、
a-10	surround from top	☐	surround from top	⊖	⊕	閒:☐門月
a-11	/	/	reverse C-shaped	⊕	⊖	𠂇:☐弓工工
a-12	full surround	☐	surround	⊕	⊖	函:☐白々
a-13	overlaid	☐	crossover	⊕	⊖	夫:☐二人
a-14	/	/	no operator		●	丿:●
a-15	/	/	geta mark		■	𠂇:●严■
a-16	/	/	rotate 180°	⊕	⊖	𠂇:⊕予
a-17	/	/	horizontal flip	⊕	⊖	玉:⊕正
a-18	/	/	similar	⊕	⊖	𠂇:●从⊕电
a-19	/	/	parentheses; group	()	()	𠂇:(☐一𠂇口一𠂇土九)

Remarks:

a-3: The L-shape, ⊕, is the only binary relationship that occurs in both of its realizations, ● and ⊖; this case is well known to learners of Kanji, as there are many common glyphs with either operator.

The choice between ● and ⊖ depends on the element that occupies the left and bottom of the character in question: only 𠂇 and 𠂇 (𠂇, 𠂇) are written *after* the top right and hence need ⊖, as in 這:●言𠂇 (observe that using standard Unicode IDL, we are forced to write this as 這:☐𠂇言, which, crucially, does not preserve the order in which the factors are normally written).¹ All other elements (i.e. except for 𠂇 and 𠂇) that enclose another one from the left and from below in an L-shape take precedence; hence, in e.g. 𠂇, 走 comes first and 力 comes second, so its formula is 𠂇:●走力.

a-11: XXXXX XXXXX XXXXX XXXXX XXXXX the reversed C-shape: lowest frequency, missing from Unicode IDCs, erroneously replaced by ● in formula 𠂇:☐☐弓工工 for which we write 𠂇:●●弓工工.

a-15: The symbol ■ originated in Japanese manual type-setting. When a composer couldn't clearly read a character in the manuscript or was unable to find a certain kanji in the type cases, they'd instead pick any sort and put it wrong side first onto the composing stick. When galley proofs were printed, that upside-down sort would leave a mark similar to ■, making it visually clear that something was still missing. In the same way, we use ■ to stand in for an unresolved element in the formulas. For example, we know the upper left part of 𠂇 is 严, a fairly common element, but the lower right part is seemingly not encoded in Unicode, so we write out the formula 𠂇:●严■; this is a syntactically valid way of stating what we can and what we cannot say about that glyph. In other words, ■ represents the unspecified element as much as an x in a mathematical formula represent the unknown quantity.

a-13: The crossover operator ⊕ is to operators what the geta mark ■ id to elements; it represents the unspecified element. Most of the time, it really represents an element being overlaid onto another one, as in 夫:⊕二人, but more generally, it may be used in any place where no other operator fits, as, for example, in ■■■■■■.

¹ see <https://raw.githubusercontent.com/cjkvi/cjkvi-ids/master/ids.txt> for actual examples

	Name	B	E
b-1	left/right		
b-2	top/down		
b-3	surround from bottom left		/
b-4	surround from upper left		
b-5	surround from upper right		
b-6	surround from bottom right		
b-7	surround from below		
b-8	surround from left		
b-9	surround from top		
b-10	surround		
b-11	any operator		
b-12	vertical flip		

	Unicode Name	A	Name	C	E	Examples
1	left to right		left/right			潰: 彳 貫
2	above to below		top/down			稟: 窗 木
3	surround from bottom left		surround from bottom left			毯: 毛 炎
4						廷: 壬 廴
5	surround from upper left		surround from upper left			慮: 虍 思
6	surround from upper right		surround from upper right			截: 戔 佳
7	/	/	surround from bottom right			弋: 一 弋
8	surround from below		surround from below			幽: 㝱 口
9	surround from left		surround from left			玉: 王 、
10	surround from top		surround from top			閒: 門 月
11	/	/	surround from right			
12	full surround		surround			囟: 白 夆
13	overlaid		crossover			夫: 二 人
14	/	/	any operator			
15	/	/	no operator			丿:
16	/	/	unspecified element			廉: 严
17	/	/	rotate 180°			𠂇: 予
18	/	/	horizontal flip			五: 正
19	/	/	vertical flip			
20	/	/	similar			龟: 从 电
21	/	/	parentheses; group			亮: (亠 口 冫 土 九)
22	left to middle and right		/			衍: (彳 彳 子)
23	above to middle and below		/			衰: (亠 艹 衣)

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4	surround from upper left		surround from upper left				慮: 思
5	surround from upper right		surround from upper right				截: 佳
6	/	/	surround from bottom right				弋: 一
7	surround from below		surround from below				函: 必
8	surround from left		surround from left				玉: 王
9	surround from top		surround from top				閒: 門
10	/	/	surround from right				
11	full surround		surround				囟: 白
12	overlaid		crossover				夫: 二
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13	/	/	parentheses; group	()			电:
13	left to middle and right		/	/			冕: 口
14	above to middle and below		/	/			衍: 彳
							衰: 衣