

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

	Unicode Name	A	Name	B	B	Examples
a-1	left to right	☐	left-right	①	●	潰:●彳貫
a-2	above to below	☐	top-down	⊖	●	稟:●畝木
a-3	surround from bottom left	☐	L-shaped, left first	①⊖	●	毯:●毛炎
a-4	L-shaped, top first	⊖①	●	廷:●壬乚
a-5	surround from upper left	☐	Γ-shaped	⊖	●	慮:●戠思
a-6	surround from upper right	☐	package	⊖	●	截:●戕佳
a-7	/	/	surround from bottom right	⊖	●	弋:●一弋
a-8	surround from below	☐	plug	⊖	●	幽:●㚰口
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	⊖	●	囟:●白々
a-13	overlaid	☐	crossover	⊖	●	夫:●二人
a-14	/	/	no operator		●	丿:●
a-15	/	/	geta mark		＝	廉:●严＝
a-16	/	/	rotate 180°	⊖	●	𠂇:●予
a-17	/	/	horizontal flip	⊖	●	五:●正
a-18	/	/	similar	⊖	●	龟:●从⊖电
a-19	/	/	parentheses; group	()		峯:●山水土

Remarks:

a-1, a-2: The left-right operator ● and the top-down operator ⊖ are the most basic analytical operators of IDLx.

毯:●毛炎 as 毯:(⊖●●)毛炎

廷:●壬乚 as 廷:(⊖●●)壬乚

玉:●王、 as 玉:(⊖●●)王、

幽:●㚰口 as 幽:(⊖●●)㚰口

國:●囙或 as 國:(⊖●●●)囙或

徵:(●彳(●山一壬)乚)

	Name	B	Examples	X
a-1	left-right	●	潰:●彳貫	
a-2	top-down	⊖	稟:●畝木	
a-3	L-shaped, left first	●	毯:●毛炎	毯:(⊖●●)毛炎
a-4	L-shaped, top first	⊖	廷:●壬乚	廷:(⊖●●)壬乚
a-5	Γ-shaped	●	慮:●戠思	慮:(⊖●●)戠思
a-6	package	●	截:●戕佳	截:(⊖●●)戕佳
a-7	surround from bottom right	⊖	弋:●一弋	弋:(⊖●●)一弋
a-8	plug	⊖	幽:●㚰口	幽:(⊖●●●)㚰口
a-9	C-shaped	●	玉:●王、	玉:(⊖●●●)王、
a-10	surround from top	⊖	閒:●門月	閒:(⊖●●●)門月
a-11	reverse C-shaped	●	𠂇:●弓工工	𠂇:(⊖●●●)弓工工
a-12	surround	⊖	囟:●白々	囟:(⊖●●●●)白々
a-13	crossover	⊖	夫:●二人	
a-14	no operator	●	丿:●	
a-15	geta mark	＝	廉:●严＝	
a-16	rotate 180°	⊖	𠂇:●予	
a-17	horizontal flip	⊖	五:●正	
a-18	similar	⊖	龟:●从⊖电	
a-19	parentheses; group	()	亮:●一一口一土九	

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-1	Yes	⊖	⊙									
c-2	Yes	⊖	⊙									
c-15	No	⊖	⊙	↗	⊙							
c-16	No	⊖	⊙	↗		⊙						

	Used	G		B	Op	L	T	R	B	l	t	r	b
c-7	Yes	⊖		⊙	↖	⊙	⊙			+	+		
c-4	Yes	⊖	⊖ ⊙	⊙	↖		⊙	⊙		-	+	+	
c-3	Yes	⊖	⊖ ⊙	⊙	↖	⊙	⊙		⊙	+	-	+	+
c-5	Yes	⊖		⊙	↖	⊙	⊙			+	+		+
c-6	Yes	⊖		⊙	↖		⊙	⊙		+	+	+	
c-19	No	⊖		⊙	↖			⊙	⊙	-	-	+	+
c-17	No	⊖		⊙	↖			⊙	⊙	-	-	+	+
c-18	No	⊖		⊙	↖	⊙			⊙	+	-		+

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-12	Yes	⊖	⊙	↖		⊙	⊙	⊙	-	+	+	+
c-8	Yes	⊖	⊙	↖	⊙	⊙	⊙		+	+	+	
c-9	Yes	⊖	⊙	↖	⊙	⊙		⊙	+	+		+
c-10	Yes	⊖	⊙	↖	⊙	⊙	⊙		+	+	+	
c-25	No	⊖	⊙	↖	⊙	⊙		⊙	+	+		+
c-20	No	⊖	⊙	↖	⊙		⊙	⊙				
c-22	No	⊖	⊙	↖		⊙	⊙	⊙				
c-24	No	⊖	⊙	↖	⊙		⊙	⊙				

	Used	G	B	Op	L	T	R	B	l	t	r	b
c-14	Yes	⊙	⊙	↖	⊙	⊙	⊙	⊙				
c-26	No	⊙	⊙	↖	⊙	⊙	⊙	⊙				

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 type of operator.

The choice between ⊙ and ⊙ depends on the element that occupies the left and bottom of the character in question: only 𠂇 and 𠂉 (𠂉, 𠂉) are written *after* the top right and hence need ⊙, as in 這: ⊙言𠂉 (observe that using standard Unicode IDL, we are forced to write this as 這: 𠂉言, which, crucially, does not preserve the order in which the factors are normally written).¹ All other elements (i.e. except for 𠂇 and 𠂉) 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: 𠂇弓工工 for which we write 𠂇: ⊙⊙弓工工.

a-15: The symbol 𠂇 originated in Japanese manual typesetting. 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 𠂇, making it visually clear that something was still missing. In the same way, we use 𠂇 to stand in for an unresolved element in the formulas. For example, we know the upper left part of 𠂇 is 𠂇, a fairly common element, but the lower right part is seemingly not encoded in Unicode, so we write out the formula 𠂇: ⊙𠂇 𠂇; this is a syntactically valid way of stating what we can and what we cannot say about that glyph. In other words, 𠂇 represents the unspecified element as much as an x in a mathematical formula represents the unknown quantity.

a-13: The crossover operator ⊙ is to operators what the geta mark 𠂇 is to elements; it represents an unspecified or underspecified operation. Most of the time, ⊙ really represents an element being overlaid onto another one, as

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

in 夫:⊗二人, but more generally, it may be used in any place where no other operator fits, as, for example, in 𠄎.

	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:⊖ 𠄎 貫
2	above to below	⊖	top/down	⊖	⊗	稟:⊖ 𠄎 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 隹
7	/	/	surround from bottom right	⊖	⊗	弋:⊖ 一 弋
8	surround from below	⊖	surround from below	⊖	⊗	幽:⊖ 𠄎 口
9	surround from left	⊖	surround from left	⊖	⊗	玉:⊖ 王 丿
10	surround from top	⊖	surround from top	⊖	⊗	閒:⊖ 門 月
11	/	/	surround from right	⊖	⊗	
12	full surround	⊖	surround	⊖	⊗	囟:⊖ 白 𠄎
13	overlaid	⊖	crossover	⊖		夫:⊖ 二人
14	/	/	any operator	⊖		
15	/	/	no operator	⊖		丿:⊖
16	/	/	unspecified element	⊖		𠄎:⊖ 𠄎 𠄎
17	/	/	rotate 180°	⊖		𠄎:⊖ 予
18	/	/	horizontal flip	⊖		王:⊖ 正
19	/	/	vertical flip		⊖	
20	/	/	similar	⊖		𠄎:⊖ 从 𠄎 电
21	/	/	parentheses; group			𠄎:(⊖ 𠄎 𠄎 𠄎 𠄎 𠄎)
22	left to middle and right	⊖	/			衍:(⊖ 𠄎 𠄎 𠄎)
23	above to middle and below	⊖	/			衰:(⊖ 𠄎 𠄎 𠄎)

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	Unicode Name	A	Name	B	C	E	Examples
1	left to right		left/right				潰: 貫
2	above to below		top/down				稟: 木
3	surround from bottom left		surround from bottom left				毯: 炎 廷: 壬
4	surround from upper left		surround from upper left				慮: 虎 思
5	surround from upper right		surround from upper right				截: 戔 佳
6	/	/	surround from bottom right				弋: 一 弋
7	surround from below		surround from below				函: 必 口
8	surround from left		surround from left				玉: 王 丷
9	surround from top		surround from top				閒: 門 月
10	/	/	surround from right				
11	full surround		surround				囟: 白 々
12	overlaid		crossover				夫: 二人
15	/	/	any operator				
16	/	/	no operator				丿:
15	/	/	unspecified element				廉: 严
17	/	/	rotate 180°				𠂇: 予
18	/	/	horizontal flip				五: 正
19	/	/	vertical flip				
20	/	/	similar				𩚑: 从 电
13	/	/	parentheses; group	()			堯: (宀 口 冫 土 九)
13	left to middle and right		/	/			衍: (彳 子)
14	above to middle and below		/	/			衰: (艹 艹 衣)