(Taha) {ᑯ₌ᑲ₌} & {wAw} {ᑭ⊥ᑭ}

Taha wAw English Letters

{Taha}

Using Geometric Letters

{ᑯ₌ᑲ₌} - {₌ᑲ₌ᑲ}

{Taham}

Using Mirrored Geometric Letters

{ᑯ⊥ᑲ₌□} - {□₌ᑯ⊥ᑲ}

{wAw}

Using Latin Matching Letters

{ᑭ⊥ᑭ} - {⅁⊥⅁}

(7, 3, 2) ≡ {c, q, x} ≡ (ء، ع، ح)

Contents

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1- Geometric Numerals and Letters and Latin Letters

The 28 *Arabic Abjad letters* were used initially to represent decimal numerals as well, and were grouped into 3 groups of 9 letters each for units, tens and hundreds. The remaining last letter (غ) was assigned to one thousand.

A historical match exists between Abjad words (**أبجد ، كلمن ، قرشت**) and the *Latin letters* sequences (**ABCD, KLMN, QRST**) except for the Arabic letters (ش، ج) {sh, j} which correspond to (s, c). This is due to the fact that {sh, j} were initially missing in Latin letters.

By inserting the two Arabic letters (ع ،ح) among Latin letters, after the sequence (KLMN), this match becomes perfect in order and position. This is not a matter of coincidence. Additionally, we notice that the last 6 letters are considered additives in both Arabic and Latin Letters.

Latin letters were ready to join the club of decimal numerals long time ago as the Greek had done by adding three Phoenicians letters to the Greek Language in order to enjoy the old Arabic Decimal System few centuries ago instead of using the primitive Roman System.

سعفص				كلمن				حطي			هوز			أبجد			
	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
٩٠	٨٠	٧٠	٦٠	٥٠	٤٠	٣٠	٢٠	١٠	٩	٨	٧	٦	٥	٤	٣	٢	١
ص	ف	ع	س	ن	م	ل	ك	ي	ط	ح	ز	و	ه	د	ج	ب	ء
P	O	ع	ح	N	M	L	K	J	I	H	G	F	E	D	C	B	A
TENS (عشرات)									UNITS (آحاد)								

Abjad Letters	ضظغ			ثخذ			قرشت			
Serial numbers	28	27	26	25	24	23	22	21	20	19
Decimal values	١٠٠٠	٩٠٠	٨٠٠	٧٠٠	٦٠٠	٥٠٠	٤٠٠	٣٠٠	٢٠٠	١٠٠
Abjad Numerals	غ	ظ	ض	ذ	خ	ث	ت	ش	ر	ق
Latin Numerals	Z	Y	X	W	V	U	T	S	R	Q
Decimal Units	ألف	HUNDREDS (مئات)								

Table of Matching Arabic Abjad Letters, Latin Letters and Arabic Numerals

جدول مطابقة الحروف العربية الأبجدية والحروف اللاتينية والأرقام العربية

When *Al Khwarizmi*, the author of **the first Algebra book**, introduced the *Zero* in the Arabic Decimal System, the first nine letters with the Zero became enough to write any number by assigning a weight for a numeral depending on its position.

Therefore, A new set of *10 shapes* for numerals including Zero called *Arqam* was used instead of letters and the new *Arabic Decimal System* became mature enough to spread all over the world with these Arabic numerals which are called (Les Chifres Arabes) in French.

9	8	7	6	5	4	3	2	1	0
9	8	7	6	5	4	3	2	1	0

The Arabic Geometric Numerals الأرقام العربية الهندسية

The Arabic Geometric Numerals are exactly the same as the universal Arabic numerals before rounding the corners of right angles. The shapes of these numerals are derived from the number of equal sides or angles of two joint squares. Smaller sides were added for certain numerals (2،5،6،9) to distinguish them from certain Geometric letters.

Similarly to Geometric Numerals, 13 basic Geometric letters (أح، عس، صم، طرد، وهلك) based on the simple shape of square are shown below. These letters are called the un-pointed letters.

ك	ل	ه	و	د	ر	ط	م	ص	س	ع	ح	أ

The Arabic Geometric basic letters الحروف العربية الهندسية الأساسية

Additional pointed letters can be made by adding one, two or three points above or below the basic letters in order to have the complete set of corresponding Geometric Abjad letters.

ضظغ			ثخذ			قرشت				سعفص				كلمن				حطي			هوز			أبجد			
غ	ظ	ض	ذ	خ	ث	ت	ش	ر	ق	ص	ف	ع	س	ن	م	ل	ك	ي	ط	ح	ز	و	ه	د	ج	ب	ء
غ	ظ	ض	ذ	خ	ث	ت	ش	ر	ق	ص	ف	ع	س	ن	م	ل	ك	ي	ط	ح	ز	و	ه	د	ج	ب	ء

The Arabic Geometric Abjad letters الحروف العربية الهندسية الأبجديه

These Geometric letters can be enhanced further to contain additional other forms of Arabic letters as Alif (أ) at the beginning of a word instead of Hamzah (ء) or Taa Marbootah (ة) or the isolated or final Haa (ه) at the end of a word instead of Haa (ه) at the beginning and in the middle of a word or to include Latin letters missing in Arabic as (g, p, v, ch).

Therefore, we can conclude that the number of sides in each of the first six Arabic Geometric letters (و، ه، د، ج، ب، أ) is equal to their corresponding numeral. Additionally, there will be minor simple geometric horizontal and vertical shapes for short and long vowels and other marks used as attributes to these Geometric Letters.

2- Geometric Letters and English Letters

Abjad Letters →					ضظغ				ثخذ			قرشت				سعفص				كلمن				حطي			هوز			أبجد			
Enhanced Letters					ة	غ	ظ	ض	ذ	خ	ث	ت	ش	ر	ق	ص	ف	ع	س	ن	م	ل	ك	ي	ط	ح	ز	و	ه	د	ج	ب	ء
G	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
E	ch	v	p	g	t/h	gh	Dh	D	dh	kh	th	t	sh	r	K	S	f	q	s	n	m	l	k	y	T	c	z	w	h	d	j	b	x

Matching Table of Arabic, **G**eometric, **M**irrored Geometric and **E**nglish letters

جدول مطابقة الحروف العربية والهندسية والهندسية العكسية والإنجليزية

The Third Abjad letter (ج) {j} is pronounced {g} in Egypt and Greece. Therefore, the Greek letter Gamma and the Latin Letter (C) pronounced both as {g} were used instead of {j} and the Alphabet name replaced the Abjad name in both cases.

For matching English Letters with Geometric letters, the letter (c) can be replaced by (k, K) or s) as in (circle) {sErkil} and (come) {Kam} and can be assigned to (ح). The letter (q) can be replaced by (k or K) as in (queen of Qatar) {kwIn ov KaTar} and can be assigned to (ع).

The letter (x) can be replaced by (ks) as in (taxi) {taksi} or by (gz) as in (exit) {egzit} and can be assigned to (ء). Hidden Hamzah (ء) is encountered at the beginning of English words as in the word (Apple or Africa). The letter (A) is a short vowel associated with the Hidden Hamzah {xa}.

The native Arabic letters, missing in Latin Letters (**ذ، خ، غ، ش، ث**), had been enhanced in English by using the letter (h) as in (**dh, kh, gh, sh, th**) in addition to (**ch, ph**). The native Latin letters (**g, p, v**) are enhanced in Geometric letters by using additional point.

The Arabic light sound letters (**د، ك، س، ت، ذ**) can be matched with the small Latin letters {**d, k, s, t, dh**} while the corresponding heavy sound letters (**ض، ق، ص، ط، ظ**) can be matched with capital letters as in {**D, K, S, T, Dh**}.

All other Arabic letters are considered light sound letters and can be matched with small Latin letters. Although some sounds may change depending on vowels as for (L) in (**بسمِ الله**) {bism**i** –**ll**Ahi} and (**أَللّه أكبر**){x**all**Ahu xakbar} which is light after Kasrah and heavy after Fathah.

3- Geometric Movements and English Vowels

Vowel Letters	*Short Vowels* (حركات قصيرة)				
English	*Offah*	*Kashah*	*Kasrah*	*Dummah*	*Fathah*
Arabic Classic	أُفـــَّة	كـــَسحـــَة	كـــَسرَة	ضـــُمـــَّة	فـــَتحـــَة
			◌ِ	◌ُ	◌َ
Arabic Geometric	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
English wAw	{xoffah}	{kascah}	{kasrah}	{Dummah}	{fatcah}
	o	e	i	u	a
Mirrored Geometric	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Vowel Letters	*Long Vowels* (حركات طويلة)				
English	*Mad Off*	*Mad Kash*	*Mad Kasr*	*Mad Dum*	*Mad Fath*
Arabic Classic	مـــَد أوف	مـــَد كـــَسح	مـــَد كـــَسر	مـــَد ضـــَم	مـــَد فـــَتح
			ي	و	ا
Arabic Geometric	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
English wAw	{mad Off}	{mad kasc}	{mad kasr}	{mad Dum}	{mad fatc}
	O	E	I	U	A
Mirrored Geometric	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Matching Table of Arabic Letters Movements & English Vowels

مطابقة حركات حروف اللغة العربية و حروف العلة الإنجليزية

4- Geometric Marks and English Letters

Arabic Marks	Tanween Marks (علامات التنوين)		
English	*Tanween Kasr*	*Tanween Dum*	*Tanween Fath*
Arabic Classic	تَنوين كَسر	تَنوين ضَم	تَنوين فَتح
	ٍ	ٌ	ً
Arabic Geometric	تنوين كسر	تنوين ضم	تنوين فتح
	≡	≡	≡
English wAw	{tanwIn kasr}	{tanwIn Dum}	{tanwIn fatc}
	in	un	an
Mirrored Geometric	تنوين كسر	تنوين ضم	تنوين فتح
	≡	≡	≡
Arabic Marks	Other Marks (علامات أخرى)		
English	*Sukoon*	*Shaddah*	*Maddah*
Arabic Classic	سُكون	شَدّة	مَدّة
	ْ	ّ	~
Arabic Geometric	سكون	شدة	مدة
	▫	≡	≡
English wAw	sukUn	shaddah	maddah
			~
Mirrored Geometric	سكون	شدة	مدة
	▫	≡	≡

Matching Table of Arabic Letters Marks & English Letters

جدول مطابقة علامات حروف اللغة العربية وحروف اللغة الإنجليزية