

1. Calculate alpha and beta as follows:

Divide the year by 28 and the remainder (0 to 27) will be the alpha (red values on the Church Calendar Dial) used in step 3 below.

Divide the year by 19 and the remainder (0 to 18) will be beta (blue values on the Church Calendar Dial) used in step 5 below.

2. Initialize the Church Calendar Dial and Hexaemeron gear as follows:

Set the input (top middle of the Church Calendar Dial) to 'alpha.8 beta.1'

Set the output (bottom middle of the Hexaemeron gear) to 'K' (Kyriaki, 'Day of The Lord' = Sunday).

3. Dial alpha on the Church Calendar Dial. The Hexaemeron gear output will be the day of the week of Evangelismos (Annunciation).

4. Initialize the Church Calendar Dial as follows:

Set the input (top middle of the Church Calendar Dial) to 'alpha.8 beta.1' while holding the Hexaemeron gear so that it does not move.

Note. We do not have to perform step 4 if Evangelismos is on a Sunday, but doing so will not affect the computation.

5. Dial beta on the Church Calendar Dial. The date (black) above beta on the Church Calendar Dial is the Paschal Moon. The Hexaemeron gear output will be the day of the week of the Paschal Moon.

6. Calculate Pascha. Place a finger on the Hexaemeron gear output. This represents the Paschal Moon date.

Navigate counterclockwise with the finger without moving the gears while counting the dates until arriving at the next Kyriaki 'K' (Sunday).

This date is The Great and Holy Pascha of The Lord+

Note: The Paschal Moon always happens on Palm Sunday or Holy Week (7 day range). The Paschal Moon happens strictly between the resurrection of Lazarus and The Resurrection of The Lord.

The Orthodox Church Calendar does not depend upon the astronomical sun, astronomical moon, astronomical equinox, etc, but is a purely mathematical (Cyclical Model) for Liturgical Time.

Moreover these cycles can be shown to be Divinely Inspired (Holy Tradition) and witness the Genealogy and Christology of The Lord. The Church Calendar precisely repeats every 532 (19 x 28) Years.

Genealogy of The Lord in The Gospel According to Saint Matthew (1904 Orthodox Patriarchal Text)			
Abraham to David 14 = Menaion Cycle / 2 1 / 7 = .14 28 57		David to The Lord 28 = Menaion Cycle 1 / 7 = .14 28 57 (repeating)	
1	Αβραάμ	1	Δαυίδ
2	Ισαάκ	2	Σολομών
3	Ιακώβ	3	Ροβοάμ
4	Ιούδας	4	Αβιά
5	Φαρέζ	5	Ασά
6	Εσρώμ	6	Ίωσαφατ
7	Αράμ	7	Ίωράμ
8	Αμιναδάβ	8	Όζιας
9	Νασασών	9	Ίωάθαμ
10	Σαλμών	10	Άχάζ
11	Βοός	11	Εζεκίας
12	Ωβήδ	12	Μανασσής
13	Ιεσσαί	13	Αμών
14	Δαυίδ	14	Ίωσίας
15		15	Ίεχονίας
16		16	Σαλαθήλ
17		17	Ζοροβάβελ
18		18	Αβιούδ
19		19	Ελιακείμ
20		20	Άζώρ
21		21	Σαδώκ
22		22	Άχειμ
23		23	Ελιούδ
24		24	Ελεάζαρ
25		25	Ματθάν
26		26	Ίακώβ
27		27	Ίωσήφ
28		28	Ίησοῦς

Genealogy of The Lord in The Gospel According to Saint Luke (1904 Orthodox Patriarchal Text)			
Abraham to The Lord 57 = 19 Year Metonic Cycle x 3 1 / 7 = .14 28 57 (repeating)			
1	Αβραάμ	20	Ελιακείμ
2	Ισαάκ	21	Ίωνά
3	Ιακώβ	22	Ίωσήφ
4	Ιούδα	23	Ιούδα
5	Φαρέζ	24	Συμεών
6	Εσρώμ	25	Λευί
7	Ίωράμ	26	Ματθάτ
8	Αράμ	27	Ίωρείμ
9	Αμιναδάβ	28	Ελιεζερ
10	Νασασών	29	Ίωσή
11	Σαλμών	30	Ίηρ
12	Βοός	31	Ελμωδάμ
13	Ωβήδ	32	Κωσάμ
14	Ιεσσαί	33	Άδδί
15	Δαυίδ	34	Μελχι
16	Νάθαν	35	Νηρί
17	Ματθαῖ	36	Σαλαθιήλ
18	Μαϊνάν	37	Ζοροβάβελ
19	Μελεά	38	Ρησά
		39	Ίωαννάν
		40	Ίωδά
		41	Ίωσήχ
		42	Σεμεύ
		43	Μαπαθίου
		44	Μαάθ
		45	Ναγγαί
		46	Εσλίμ
		47	Ναούμ
		48	Άμώς
		49	Μαπαθίου
		50	Ίωσήφ
		51	Ίωαννά
		52	Μελχι
		53	Λευί
		54	Ματθάν
		55	Ίηλί
		56	Ίωσήφ
		57	Ίησοῦς

e = 2.7182 81828 45904 52353 60287 47135 26624 97757 ..

The red digits below sum to 28 (Menaion Cycle)

The blue digits below sum to 19 (Paschal Moon Cycle)

27182818284590452353602874713526624977572470936999 Menaion Cycle
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Year	α	β	A	PM	P
2016	0	2			
2017	1	3			
2018	2	4			
2019	3	5			
2020	4	6			
2021	5	7			
2022	6	8			
2023	7	9			
2024	8	10			
2025	9	11			
2026	10	12			
2027	11	13			
2028	12	14			
2029	13	15			
2030	14	16			
2031	15	17			
2032	16	18			
2033	17	0			
2034	18	1			
2035	19	2			
2036	20	3			
2037	21	4			
2038	22	5			
2039	23	6			
2040	24	7			
2041	25	8			
2042	26	9			
2043	27	10			
2044	0	11			
2045	1	12			
2046	2	13			
2047	3	14			
2048	4	15			
2049	5	16			
2050	6	17			