

Appendix

Thriangams (3 Angams)

Name of the Angam	Symbol	No of Beats (Atcharams)	Kriya (Hand Gesture)
Anudhrutham	U	1	One clap
Dhrutham	O	2	One clap and a turn
Lagu	I	3 or 4 or 5 or 7 or 9 (depends on Jaathi)	One clap and number of finger counts

Shadangam (6 Angams)

No	Name of the Angam	Symbol	No of Beats (Atcharams)
1	Anudhrutham	U	1
2	Dhrutham	O	2
3	Lagu	I	4
4	Guru	8	8
5	Plutham	I 8	12
6	Kakapatham	+	16

Five Jaathis of Lagu

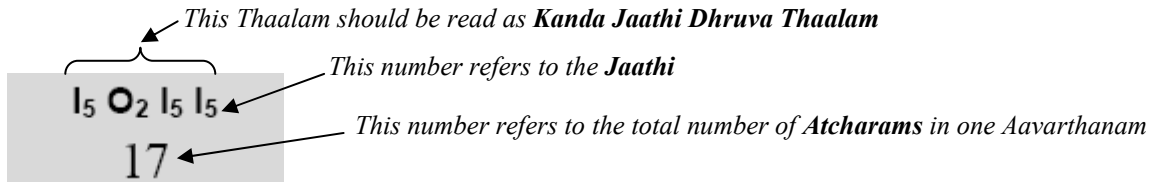
No	Name of the Jaathi	Symbol of Lagu	No of Beats (Atcharams)	Kriya (Hand Gesture)
1	Thisra Jaathi	I₃	3	A clap and 2 finger counts
2	Chathusra Jaathi	I₄	4	A clap and 3 finger counts
3	Kanda Jaathi	I₅	5	A clap and 4 finger counts
4	Misra Jaathi	I₇	7	A clap and 6 finger counts
5	Sangeerna Jaathi	I₉	9	A clap and 8 finger counts

Saptha (7) Thaalam

No	Name of the Thaalam	Symbol	Symbol in words
1	Dhruva Thaalam	I O I I	Lagu Dhrutham Lagu Lagu
2	Mattiya Thaalam	I O I	Lagu Dhrutham Lagu
3	Rupaka Thaalam	O I	Dhrutham Lagu
4	Jhampa Thaalam	I U O	Lagu Anudhrutham Dhrutham
5	Thirupudai Thaalam	I O O	Lagu Dhrutham Dhrutham
6	Ada Thaalam	I I O O	Lagu Lagu Dhrutham Dhrutham
7	Eka Thaalam	I	Lagu

35 Thaalam

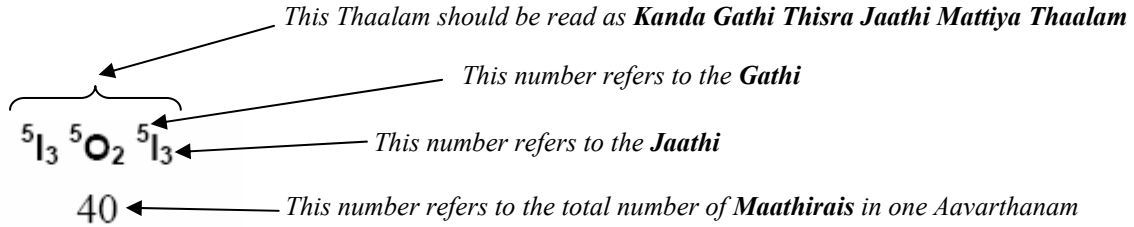
The seven (Saptha) Thaalam differ in their Thaala duration and formation by the variations of their Angams. Only three Angams are used. Each of these seven (Saptha) Thaalam has a Lagu Angam and “Lagu” has different Atcharams for each of the 5 Jaathis and so the seven (Saptha) Thaalam expand to 35 (7 × 5) Thaalam.



		Panja (5) Jaathi				
		Thisra Jaathi	Chathusra Jaathi	Kanda Jaathi	Misra Jaathi	Sangeerna Jaathi
Saptha (7) Thaalam	Dhruva Thaalam	I ₃ O ₂ I ₃ I ₃ 11	I ₄ O ₂ I ₄ I ₄ 14	I ₅ O ₂ I ₅ I ₅ 17	I ₇ O ₂ I ₇ I ₇ 23	I ₉ O ₂ I ₉ I ₉ 29
	Mattiya Thaalam	I ₃ O ₂ I ₃ 8	I ₄ O ₂ I ₄ 10	I ₅ O ₂ I ₅ 12	I ₇ O ₂ I ₇ 16	I ₉ O ₂ I ₉ 20
	Rupaka Thaalam	O ₂ I ₃ 5	O ₂ I ₄ 6	O ₂ I ₅ 7	O ₂ I ₇ 9	O ₂ I ₉ 11
	Jhampa Thaalam	I ₃ U ₁ O ₂ 6	I ₄ U ₁ O ₂ 7	I ₅ U ₁ O ₂ 8	I ₇ U ₁ O ₂ 10	I ₉ U ₁ O ₂ 12
	Thirupudai Thaalam	I ₃ O ₂ O ₂ 7	I ₄ O ₂ O ₂ 8	I ₅ O ₂ O ₂ 9	I ₇ O ₂ O ₂ 11	I ₉ O ₂ O ₂ 13
	Ada Thaalam	I ₃ I ₃ O ₂ O ₂ 10	I ₄ I ₄ O ₂ O ₂ 12	I ₅ I ₅ O ₂ O ₂ 14	I ₇ I ₇ O ₂ O ₂ 18	I ₉ I ₉ O ₂ O ₂ 22
	Eka Thaalam	I ₃ 3	I ₄ 4	I ₅ 5	I ₇ 7	I ₉ 9

175 Thaalam

Each of the 35 Thaalam have more variations depending on Gathis. The Gathi represents the number of Maathirais (i.e. sub-divisions) within each Thaal beat. There are 5 Gathis that each of the 35 Thaalam can take, therefore giving a total of $35 \times 5 = 175$ Thaalam. The 5 Gathis are: Thisra Gathi - 3 Maathirais, Chathusra Gathi - 4 Maathirais, Kanda Gathi - 5 Maathirais, Misra Gathi - 7 Maathirais and Sangeerna Gathi - 9 Maathirais.



Thisram	5 Gathis				
	Thisra Gathi	Chathusra Gathi	Kanda Gathi	Misra Gathi	Sangeerna Gathi
Thisra Jaathi Dhruva Thaalam	${}^3I_3 {}^3O_2 {}^3I_3 {}^3I_3$ 33	${}^4I_3 {}^4O_2 {}^4I_3 {}^4I_3$ 44	${}^5I_3 {}^5O_2 {}^5I_3 {}^5I_3$ 55	${}^7I_3 {}^7O_2 {}^7I_3 {}^7I_3$ 77	${}^9I_3 {}^9O_2 {}^9I_3 {}^9I_3$ 99
Thisra Jaathi Mattiya Thaalam	${}^3I_3 {}^3O_2 {}^3I_3$ 24	${}^4I_3 {}^4O_2 {}^4I_3$ 32	${}^5I_3 {}^5O_2 {}^5I_3$ 40	${}^7I_3 {}^7O_2 {}^7I_3$ 56	${}^9I_3 {}^9O_2 {}^9I_3$ 72
Thisra Jaathi Rupaka Thaalam	${}^3O_2 {}^3I_3$ 15	${}^4O_2 {}^4I_3$ 20	${}^5O_2 {}^5I_3$ 25	${}^7O_2 {}^7I_3$ 35	${}^9O_2 {}^9I_3$ 45
Thisra Jaathi Jhampa Thaalam	${}^3I_3 {}^3U_1 {}^3O_2$ 18	${}^4I_3 {}^4U_1 {}^4O_2$ 24	${}^5I_3 {}^5U_1 {}^5O_2$ 30	${}^7I_3 {}^7U_1 {}^7O_2$ 42	${}^9I_3 {}^9U_1 {}^9O_2$ 54
Thisra Jaathi Thirupudai Thaalam	${}^3I_3 {}^3O_2 {}^3O_2$ 21	${}^4I_3 {}^4O_2 {}^4O_2$ 28	${}^5I_3 {}^5O_2 {}^5O_2$ 35	${}^7I_3 {}^7O_2 {}^7O_2$ 49	${}^9I_3 {}^9O_2 {}^9O_2$ 63
Thisra Jaathi Ada Thaalam	${}^3I_3 {}^3I_3 {}^3O_2 {}^3O_2$ 30	${}^4I_3 {}^4I_3 {}^4O_2 {}^4O_2$ 40	${}^5I_3 {}^5I_3 {}^5O_2 {}^5O_2$ 50	${}^7I_3 {}^7I_3 {}^7O_2 {}^7O_2$ 70	${}^9I_3 {}^9I_3 {}^9O_2 {}^9O_2$ 90
Thisra Jaathi Eka Thaalam	3I_3 9	4I_3 12	5I_3 15	7I_3 21	9I_3 27

Chathusram	5 Gathis				
	Thisra Gathi	Chathusra Gathi	Kanda Gathi	Misra Gathi	Sangeerna Gathi
Chathusra Jaathi Dhruva Thaalam	${}^3I_4 {}^3O_2 {}^3I_4 {}^3I_4$ 42	${}^4I_4 {}^4O_2 {}^4I_4 {}^4I_4$ 56	${}^5I_4 {}^5O_2 {}^5I_4 {}^5I_4$ 70	${}^7I_4 {}^7O_2 {}^7I_4 {}^7I_4$ 98	${}^9I_4 {}^9O_2 {}^9I_4 {}^9I_4$ 126
Chathusra Jaathi Mattiya Thaalam	${}^3I_4 {}^3O_2 {}^3I_4$ 30	${}^4I_4 {}^4O_2 {}^4I_4$ 40	${}^5I_4 {}^5O_2 {}^5I_4$ 50	${}^7I_4 {}^7O_2 {}^7I_4$ 70	${}^9I_4 {}^9O_2 {}^9I_4$ 90
Chathusra Jaathi Rupaka Thaalam	${}^3O_2 {}^3I_4$ 18	${}^4O_2 {}^4I_4$ 24	${}^5O_2 {}^5I_4$ 30	${}^7O_2 {}^7I_4$ 42	${}^9O_2 {}^9I_4$ 54
Chathusra Jaathi Jhampa Thaalam	${}^3I_4 {}^3U_1 {}^3O_2$ 21	${}^4I_4 {}^4U_1 {}^4O_2$ 28	${}^5I_4 {}^5U_1 {}^5O_2$ 35	${}^7I_4 {}^7U_1 {}^7O_2$ 49	${}^9I_4 {}^9U_1 {}^9O_2$ 63
Chathusra Jaathi Thirupudai Thaalam	${}^3I_4 {}^3O_2 {}^3O_2$ 24	${}^4I_4 {}^4O_2 {}^4O_2$ 32	${}^5I_4 {}^5O_2 {}^5O_2$ 40	${}^7I_4 {}^7O_2 {}^7O_2$ 56	${}^9I_4 {}^9O_2 {}^9O_2$ 72
Chathusra Jaathi Ada Thaalam	${}^3I_4 {}^3I_4 {}^3O_2 {}^3O_2$ 36	${}^4I_4 {}^4I_4 {}^4O_2 {}^4O_2$ 48	${}^5I_4 {}^5I_4 {}^5O_2 {}^5O_2$ 60	${}^7I_4 {}^7I_4 {}^7O_2 {}^7O_2$ 84	${}^9I_4 {}^9I_4 {}^9O_2 {}^9O_2$ 108
Chathusra Jaathi Eka Thaalam	3I_4 12	4I_4 16	5I_4 20	7I_4 28	9I_4 36

Kandam	5 Gathis				
	Thisra Gathi	Chathusra Gathi	Kanda Gathi	Misra Gathi	Sangeerna Gathi
Kanda Jaathi Dhruva Thaalam	${}^3I_5 {}^3O_2 {}^3I_5 {}^3I_5$ 51	${}^4I_5 {}^4O_2 {}^4I_5 {}^4I_5$ 68	${}^5I_5 {}^5O_2 {}^5I_5 {}^5I_5$ 85	${}^7I_5 {}^7O_2 {}^7I_5 {}^7I_5$ 119	${}^9I_5 {}^9O_2 {}^9I_5 {}^9I_5$ 153
Kanda Jaathi Mattiya Thaalam	${}^3I_5 {}^3O_2 {}^3I_5$ 36	${}^4I_5 {}^4O_2 {}^4I_5$ 48	${}^5I_5 {}^5O_2 {}^5I_5$ 60	${}^7I_5 {}^7O_2 {}^7I_5$ 84	${}^9I_5 {}^9O_2 {}^9I_5$ 108
Kanda Jaathi Rupaka Thaalam	${}^3O_2 {}^3I_5$ 21	${}^4O_2 {}^4I_5$ 28	${}^5O_2 {}^5I_5$ 35	${}^7O_2 {}^7I_5$ 49	${}^9O_2 {}^9I_5$ 63
Kanda Jaathi Jhampa Thaalam	${}^3I_5 {}^3U_1 {}^3O_2$ 24	${}^4I_5 {}^4U_1 {}^4O_2$ 32	${}^5I_5 {}^5U_1 {}^5O_2$ 40	${}^7I_5 {}^7U_1 {}^7O_2$ 56	${}^9I_5 {}^9U_1 {}^9O_2$ 63
Kanda Jaathi Thirupudai Thaalam	${}^3I_5 {}^3O_2 {}^3O_2$ 27	${}^4I_5 {}^4O_2 {}^4O_2$ 36	${}^5I_5 {}^5O_2 {}^5O_2$ 45	${}^7I_5 {}^7O_2 {}^7O_2$ 63	${}^9I_5 {}^9O_2 {}^9O_2$ 81
Kanda Jaathi Ada Thaalam	${}^3I_5 {}^3I_5 {}^3O_2 {}^3O_2$ 42	${}^4I_5 {}^4I_5 {}^4O_2 {}^4O_2$ 56	${}^5I_5 {}^5I_5 {}^5O_2 {}^5O_2$ 70	${}^7I_5 {}^7I_5 {}^7O_2 {}^7O_2$ 98	${}^9I_5 {}^9I_5 {}^9O_2 {}^9O_2$ 126
Kanda Jaathi Eka Thaalam	3I_5 15	4I_5 20	5I_5 25	7I_5 35	9I_5 45

Misram	5 Gathis				
	Thisra Gathi	Chathusra Gathi	Kanda Gathi	Misra Gathi	Sangeerna Gathi
Misra Jaathi Dhruva Thaalam	${}^3I_7 {}^3O_2 {}^3I_7 {}^3I_7$ 69	${}^4I_7 {}^4O_2 {}^4I_7 {}^4I_7$ 92	${}^5I_7 {}^5O_2 {}^5I_7 {}^5I_7$ 115	${}^7I_7 {}^7O_2 {}^7I_7 {}^7I_7$ 161	${}^9I_7 {}^9O_2 {}^9I_7 {}^9I_7$ 207
Misra Jaathi Mattiya Thaalam	${}^3I_7 {}^3O_2 {}^3I_7$ 48	${}^4I_7 {}^4O_2 {}^4I_7$ 64	${}^5I_7 {}^5O_2 {}^5I_7$ 80	${}^7I_7 {}^7O_2 {}^7I_7$ 112	${}^9I_7 {}^9O_2 {}^9I_7$ 144
Misra Jaathi Rupaka Thaalam	${}^3O_2 {}^3I_7$ 27	${}^4O_2 {}^4I_7$ 36	${}^5O_2 {}^5I_7$ 45	${}^7O_2 {}^7I_7$ 63	${}^9O_2 {}^9I_7$ 81
Misra Jaathi Jhampa Thaalam	${}^3I_7 {}^3U_1 {}^3O_2$ 30	${}^4I_7 {}^4U_1 {}^4O_2$ 40	${}^5I_7 {}^5U_1 {}^5O_2$ 50	${}^7I_7 {}^7U_1 {}^7O_2$ 70	${}^9I_7 {}^9U_1 {}^9O_2$ 90
Misra Jaathi Thirupudai Thaalam	${}^3I_7 {}^3O_2 {}^3O_2$ 33	${}^4I_7 {}^4O_2 {}^4O_2$ 44	${}^5I_7 {}^5O_2 {}^5O_2$ 55	${}^7I_7 {}^7O_2 {}^7O_2$ 77	${}^9I_7 {}^9O_2 {}^9O_2$ 99
Misra Jaathi Ada Thaalam	${}^3I_7 {}^3I_7 {}^3O_2 {}^3O_2$ 54	${}^4I_7 {}^4I_7 {}^4O_2 {}^4O_2$ 72	${}^5I_7 {}^5I_7 {}^5O_2 {}^5O_2$ 90	${}^7I_7 {}^7I_7 {}^7O_2 {}^7O_2$ 126	${}^9I_7 {}^9I_7 {}^9O_2 {}^9O_2$ 162
Misra Jaathi Eka Thaalam	3I_7 21	4I_7 28	5I_7 35	7I_7 49	9I_7 63

Sangeernam	5 Gathis				
	Thisra Gathi	Chathusra Gathi	Kanda Gathi	Misra Gathi	Sangeerna Gathi
Sangeerna Jaathi Dhruva Thaalam	${}^3I_9 {}^3O_2 {}^3I_9 {}^3I_9$ 87	${}^4I_9 {}^4O_2 {}^4I_9 {}^4I_9$ 116	${}^5I_9 {}^5O_2 {}^5I_9 {}^5I_9$ 145	${}^7I_9 {}^7O_2 {}^7I_9 {}^7I_9$ 203	${}^9I_9 {}^9O_2 {}^9I_9 {}^9I_9$ 261
Sangeerna Jaathi Mattiya Thaalam	${}^3I_9 {}^3O_2 {}^3I_9$ 60	${}^4I_9 {}^4O_2 {}^4I_9$ 80	${}^5I_9 {}^5O_2 {}^5I_9$ 100	${}^7I_9 {}^7O_2 {}^7I_9$ 140	${}^9I_9 {}^9O_2 {}^9I_9$ 180
Sangeerna Jaathi Rupaka Thaalam	${}^3O_2 {}^3I_9$ 33	${}^4O_2 {}^4I_9$ 44	${}^5O_2 {}^5I_9$ 55	${}^7O_2 {}^7I_9$ 77	${}^9O_2 {}^9I_9$ 99
Sangeerna Jaathi Jhampa Thaalam	${}^3I_9 {}^3U_1 {}^3O_2$ 36	${}^4I_9 {}^4U_1 {}^4O_2$ 48	${}^5I_9 {}^5U_1 {}^5O_2$ 60	${}^7I_9 {}^7U_1 {}^7O_2$ 84	${}^9I_9 {}^9U_1 {}^9O_2$ 108
Sangeerna Jaathi Thirupudai Thaalam	${}^3I_9 {}^3O_2 {}^3O_2$ 39	${}^4I_9 {}^4O_2 {}^4O_2$ 52	${}^5I_9 {}^5O_2 {}^5O_2$ 65	${}^7I_9 {}^7O_2 {}^7O_2$ 91	${}^9I_9 {}^9O_2 {}^9O_2$ 117
Sangeerna Jaathi Ada Thaalam	${}^3I_9 {}^3I_9 {}^3O_2 {}^3O_2$ 66	${}^4I_9 {}^4I_9 {}^4O_2 {}^4O_2$ 88	${}^5I_9 {}^5I_9 {}^5O_2 {}^5O_2$ 110	${}^7I_9 {}^7I_9 {}^7O_2 {}^7O_2$ 154	${}^9I_9 {}^9I_9 {}^9O_2 {}^9O_2$ 198
Sangeerna Jaathi Eka Thaalam	3I_9 27	4I_9 36	5I_9 45	7I_9 63	9I_9 81

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