

# Candidate Leap Cycles where a Short (Common) Year has 364 and a Long (Leap) Year 371 days (maximum of 600 years per cycle)

Target Year = 2001 AD. Minimum and Maximum Mean Year 365.241392435298 to 365.242912285157 days = Time in Excess of 365 days from 5h 47m 36.3s to 5h 49m 47.6s

Short "mixer" cycles have 3 long in 17 years and 8 long in 45 years.

For symmetrical cycle, year y is long if and only if the remainder of  $(L \times Y + K) \text{ MOD } C < L$ , where L=Long Years per Cycle and C=Years per Cycle. If C is even then alternative  $K = K-1$ .

See 'Symmetrical Leap Cycles' at <<http://www.sym454.org/leap/>>. These are leap week cycles, so the number of days per cycle MOD 7 is always zero.

Long /cycle	Years /cycle	Mixers		Calendar		Mean Year >365 days		Days /cycle	Months /cycle	Lunar Months					SymLeap		Average Leap (Long Year) Interval			
		17	45	Mean Year	Decimal	Exact Time	Decimal			Exact Time	Moladot	Synodic	Sidereal	Anomalistic	Draconic	U	K	Years	Months	Weeks
8	45	0	1	365+11/45	0.244444444	05h 52m 0s	16436	540	556.575324	556.5754236	601.5739553	596.4895114	603.9933349	50	22	5+5/8	67+1/2	293+1/2	2054+1/2	
106	597	6	11	365+145/597	0.242881072	05h 49m 44+184/199s	218050	7164	7383.867693	7383.869015	7980.846979	7913.393646	8012.943945	490	298	5+67/106	67+31/53	293+46/53	2057+4/53	
87	490	5	9	365+17/70	0.242857143	05h 49m 42+6/7s	178969	5880	6060.460524	6060.461608	6550.44349	6495.079786	6576.787732	383	245	5+55/87	67+17/29	293+76/87	2057+10/87	
68	383	4	7	365+93/383	0.242819843	05h 49m 39+243/383s	139888	4596	4737.053354	4737.054202	5120.040001	5076.765927	5140.631518	276	191	5+43/68	67+10/17	293+15/17	2057+3/17	
49	276	3	5	365+67/276	0.242753623	05h 49m 33+21/23s	100807	3312	3413.646185	3413.646796	3689.636512	3658.452067	3704.475305	169	138	5+31/49	67+29/49	293+44/49	2057+2/7	
79	445	5	8	365+108/445	0.242696629	05h 49m 28+88/89s	162533	5340	5503.8852	5503.886185	5948.869535	5898.590275	5972.794397	169	222	5+50/79	67+47/79	293+72/79	2057+30/79	
30	169	2	3	365+41/169	0.24260355	05h 49m 20+160/169s	61726	2028	2090.239015	2090.239389	2259.233023	2240.138208	2268.319092	62	84	5+19/30	67+3/5	293+14/15	2057+8/15	
101	569	7	10	365+138/569	0.242530756	05h 49m 14+374/569s	207823	6828	7037.548891	7037.55015	7606.528602	7542.238971	7637.120154	400	284	5+64/101	67+61/101	293+96/101	2057+66/101	
71	400	5	7	365+97/400	0.2425	05h 49m 12s	146097	4800	4947.309876	4947.310761	5347.295579	5302.100763	5368.801062	231	200	5+45/71	67+43/71	293+68/71	2057+50/71	
41	231	3	4	365+8/33	0.242424242	05h 49m 5+5/11s	84371	2772	2857.070861	2857.071372	3088.062557	3061.962556	3100.48197	62	115	5+26/41	67+25/41	293+40/41	2057+34/41	
93	524	7	9	365+127/524	0.242366412	05h 49m 60/131s	191387	6288	6480.973567	6480.974726	7004.954647	6945.74946	7033.126819	293	262	5+59/93	67+19/31	293+92/93	2057+86/93	
52	293	4	5	365+71/293	0.242320819	05h 48m 56+152/293s	107016	3516	3623.902706	3623.903355	3916.89209	3883.786904	3932.644849	62	146	5+33/52	67+8/13	294	2058	
63	355	5	6	365+86/355	0.242253521	05h 48m 50+50/71s	129661	4260	4390.734552	4390.735337	4745.721624	4705.611252	4764.807727	62	177	5+40/63	67+13/21	294+1/63	2058+1/9	
74	417	6	7	365+101/417	0.242206235	05h 48m 46+86/139s	152306	5004	5157.566397	5157.56732	5574.551158	5527.4356	5596.970605	62	208	5+47/74	67+23/37	294+1/37	2058+7/37	
85	479	7	8	365+116/479	0.242171119	05h 48m 43+283/479s	174951	5748	5924.398243	5924.399303	6403.380692	6349.259948	6429.133484	62	239	5+54/85	67+53/85	294+3/85	2058+21/85	
96	541	8	9	365+131/541	0.242144177	05h 48m 41+139/541s	197596	6492	6691.230088	6691.231286	7232.210225	7171.084296	7261.296362	62	270	5+61/96	67+5/8	294+1/24	2058+7/24	
11	62	1	1	365+15/62	0.241935484	05h 48m 23+7/31s	22645	744	766.8318455	766.8319827	828.8295338	821.8243481	832.1628784	17	31	5+7/11	67+7/11	294+1/11	2058+7/11	
102	575	10	9	365+139/575	0.24173913	05h 48m 6+6/23s	210014	6900	7111.743131	7111.744404	7686.721382	7621.75397	7717.635449	513	287	5+65/102	67+11/17	294+7/51	2058+49/51	
91	513	9	8	365+124/513	0.2417154	05h 48m 4+4/19s	187369	6156	6344.911286	6344.912421	6857.891849	6799.929622	6885.472571	451	256	5+58/91	67+59/91	294+1/7	2059	
80	451	8	7	365+109/451	0.241685144	05h 48m 1+269/451s	164724	5412	5578.07944	5578.080438	6029.062315	5978.105274	6053.309692	389	225	5+51/80	67+13/20	294+3/20	2059+1/20	
69	389	7	6	365+94/389	0.241645244	05h 47m 58+58/389s	142079	4668	4811.247594	4811.248456	5200.232781	5156.280925	5221.146814	327	194	5+44/69	67+15/23	294+11/69	2059+8/69	
58	327	6	5	365+79/327	0.241590214	05h 47m 53+43/109s	119434	3924	4044.415749	4044.416473	4371.403247	4334.456577	4388.983936	265	163	5+37/58	67+19/29	294+5/29	2059+6/29	
105	592	11	9	365+143/592	0.241554054	05h 47m 50+10/37s	216223	7104	7321.999652	7322.000963	7913.976961	7847.088807	7945.804993	265	296	5+67/105	67+23/35	294+19/105	2059+4/15	
47	265	5	4	365+64/265	0.241509434	05h 47m 46+22/53s	96789	3180	3277.583903	3277.58449	3542.573714	3512.632229	3556.821057	203	132	5+30/47	67+31/47	294+9/47	2059+16/47	
83	468	9	7	365+113/468	0.241452991	05h 47m 41+7/13s	170933	5616	5788.335961	5788.336997	6256.317893	6203.44011	6281.479236	203	234	5+53/83	67+55/83	294+17/83	2059+36/83	
3	17	1	0	365+4/17	0.235294118	05h 38m 49+7/17s	6209	204	210.2565215	210.2565591	227.2555785	225.3348367	228.1695435	50	8	5+2/3	68	295+2/3	2069+2/3	