The Complete Luaḥ and Gabbai Guide

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Contents

I	Perp	petual Luach	4						
I	Com	puting Moladot and Determining Kevi'ot	5						
2	Kevi'ot for Specific Years								
3	Moladot for Specific Months								
4	4 Selected Holiday's Gregorian Dates								
5	Luac	chs for Each Year	15						
	5.I	203 Monday-Short-Tuesday (non-leap)	15						
	5.2	225 Monday-Long-Thursday (non-leap)							
	5.3	315 Tuesday-Regular-Thursday (non-leap)							
	5.4	517 Thursday-Regular-Shabbat (non-leap)							
	5.5	521 Thursday-Long-Sunday (non-leap)							
	5.6	701 Shabbat-Short-Sunday (non-leap)							
	5.7	723 Shabbat-Regular-Tuesday (non-leap)							
	5.8	205 Tuesday-Short-Thursday (leap)							
	5.9	227 Tuesday-Long-Shabbat (leap)							
	5.10	317 Tuesday-Regular-Shabbat							
	5.II	501 Thursday-Short-Sunday							
	5.12	523 Thursday-Long-Tuesday							
	5.13	703 Shabbat-Short-Tuesday (leap)							
	5.14	725 Shabbat-Long-Thursday (leap)							
6	Zma	nim							
O	6.1	Zmanim for Chicago	59						
	6.1	Zinamin for Cincago	60						
7	Calc	ulation of Zmanim	62						
	7 . I	Mathematical Background							
	7.2	Instructions							
	7.3	Observations	-						
	7.4	Equation of Time and Declination Table	65						
	7.5	o° Offset & Mins per ° Table							
	7.6	Depression Angles & Adjustments							
	7.7	Multiplication Table	72						
	7.8	Minute Correction Table	73						
	7.9	Time Zone Table	74						
	7.10	Sample Calculations	75						
		7.10.1 Example 1	75						
		7.10.2 Example 2	75						
		7.10.3 Example 3	75						

CONTENTS

		7.10.5	Example 4	
II	Sel	ected H	Ialakhot for Gabbaim	77
8	Litu	rgical H	Talakhot	78
	8.1	Introd	uction	78
	8.2	Situatio	ons where Prayer is Forbidden	78
	8.3		inished Minyan	
	8.4		uptions in Liturgy	
	,	8.4.1	During Pesukei DeZimra	
		8.4.2	During the Shema and its Blessings	
		8.4.3	During the Amidah	
	8.5	Time-I	Related Errors in Liturgy	
		8.5.1	Requests for Rain	
		8.5.2	Shabbat and Festival Liturgical Texts	
		8.5.3	Holiday Liturgical Additions	
		8.5.4	Cases of Doubt	
	8.6		Hamazon	
		8.6.ı	When to Recite Birkat Hamazon	
		8.6.2	Errors in Additions to Birkat Hamazon	
	8.7	Priorit	y List for Aliyot	
9	Prol	olems in	Sifrei Torah	83
			an Invalidation is Found	82

Part I Perpetual Luach

Computing Moladot and Determining Kevi'ot

Kevi'ot for Specific Years

The following is a list of kevi^ot for years until 6000. Years in **bold** are shemitta years. Years in *italics* are leap years. The number code works as follows:

- The first digit is the day of the week of Rosh Hashana (I=Sunday, 7=Shabbat, etc)
- The second digit is the number of days. o for a short year with either 353 or 383 days, I for a regular year with 354 or 384 days, and 2 for a long year of 355 or 385 days.
- The third digit is the day of the week of Pesaḥ (1=Sunday, 7=Shabbat, etc)

Each year has its own luah in subsequent chapters.

Decade	0	I	2	3	4	5	6	7	8	9
5780	225	701	317	225	703	521	315	725	723	506
5790	II5	723	517	205	723	523	506	113	523	517
5800	225	703	517	227	203	521	317	225	701	317
5810	225	723	501	315	725	723	506	115	723	517
5820	205	723	523	517	203	523	517	225	703	517
5830	225	703	521	317	225	701	317	225	723	501
5840	315	725	723	517	205	723	517	205	723	517
5850	227	203	523	517	225	703	517	225	725	701
5860	317	225	723	501	315	723	523	506	113	523
5870	517	205	723	517	216	113	517	227	225	703
5880	517	225	703	521	315	725	723	506	II5	723
5890	501	315	723	523	506	113	523	517	205	723
5900	517	227	203	521	317	225	701	317	225	703
5910	521	315	725	723	517	205	723	501	315	723
5920	523	517	203	523	517	225	703	517	227	203
5930	52I	317	225	701	317	225	725	701	315	725
5940	723	517	205	723	517	216	113	523	517	225
5950	703	517	225	703	517	227	225	701	317	225
5960	723	501	315	723	523	506	II5	723	517	205
5970	723	517	227	203	523	517	225	703	517	225
5980	703	521	315	725	701	317	225	723	501	315
5990	723	523	517	205	723	517	205	723	517	227

Moladot for Specific Months

Below is a table of the molad for every month until 5900. To save space, months are "stacked" on each other. Nisan, Iyyar, etc are below Tishrei, Marḥeshvan, etc. The three numbers are the days, hours, and ḥalakim of the molad. In this reckoning days start at 6pm the previous night, as in the normal Jewish way of reckoning dates. Often this is expressed using the am/pm system. To convert from these numbers to a time:

- I. If the hour number (second number) is less than 6, subtract I from the day
- 2. If the hour is less than 6, add 6 to the hours. The time is pm.
- 3. If the hour is between 6 and 18, subtract 6 from the hours. The time is am.
- 4. If the hour is above 18, subtract 18 from the hours. The time is pm.
- 5. Divide the halakim by 18 and round down. This is the number of minutes
- 6. The remainder of halakim divided by 18 is the number of halakim

For example, 2 - 5 - 204 works out to Sunday (since 5 is less than 6, so it's Sunday evening) 11pm, 11 minutes, and 6 halakim. Or more concisely, Sunday, 11:11pm and 6 halakim. For simplicity and to match the molad as given in traditional Jewish texts, and to avoid the impression that the molad for any given month on the standard clock time has any astronomical meaning, it may be desireable to use days - hours - halakim as in the table.

	Tishrei	Marḥeshvan	Kislev	Tevet	Shevat	Adar	Adar II
	Nisan	Iyyar	Sivan	Tammuz	Av	Elul	
c78.4	6 - 11 - 882	1 - 0 - 595	2 - 13 - 308	4 - 2 - 2I	5 - 14 - 814	7 - 3 - 527	I - 16 - 240
5784	3 - 4 - 1033	4 - 17 - 746	6 - 6 - 459	7 - 19 - 172	2 - 7 - 965	3 - 20 - 678	
5785	5 - 9 - 391	6 - 22 - 104	1 - 10 - 897	2 - 23 - 610	4 - 12 - 323	6 - 1 - 36	
	7 - 13 - 829	2 - 2 - 542	3 - 15 - 255	5 - 3 - 1048	6 - 16 - 761	I - 5 - 474	
5786	2 - 18 - 187	4 - 6 - 980	5 - 19 - 693	7 - 8 - 406	1 - 21 - 119	3 - 9 - 912	
	4 - 22 - 625	6 - 11 - 338	1 - 0 - 51	2 - 12 - 844	4 - I - 557	5 - 14 - 270	
5787	7 - 2 - 1063	1 - 15 - 776	3 - 4 - 489	4 - I7 - 202	6 - 5 - 995	7 - 18 - 708	2 - 7 - 421
	3 - 20 - 134	5 - 8 - 927	6 - 21 - 640	1 - 10 - 353	2 - 23 - 66	4 - 11 - 859	
5788	6 - 0 - 572	7 - 13 - 285	2 - 1 - 1078	3 - 14 - 791	5 - 3 - 504	6 - 16 - 217	
	I - 4 - IOIO	2 - 17 - 723	4 - 6 - 436	5 - 19 - 149	7 - 7 - 942	I - 20 - 655	
5789	3 - 9 - 368	4 - 22 - 81	6 - 10 - 874	7 - 23 - 587	2 - 12 - 300	4 - 1 - 13	
	5 - 13 - 806	7 - 2 - 519	I - I5 - 232	3 - 3 - 1025	4 - 16 - 738	6 - 5 - 451	
£700	7 - 18 - 164	2 - 6 - 957	3 - 19 - 670	5 - 8 - 383	6 - 21 - 96	1 - 9 - 889	2 - 22 - 602
5790	4 - 11 - 315	6 - 0 - 28	7 - 12 - 821	2 - I - 534	3 - 14 - 247	5 - 2 - 1040	
5701	6 - 15 - 753	1 - 4 - 466	2 - 17 - 179	4 - 5 - 972	5 - 18 - 685	7 - 7 - 398	
5791	I - 20 - III	3 - 8 - 904	4 - 21 - 617	6 - 10 - 330	7 - 23 - 43	2 - 11 - 836	

	Tishrei Nisan	Marḥeshvan Iyyar	Kislev Sivan	Tevet Tammuz	Shevat Av	Adar Elul	Adar II
	4-0-549	5 - 13 - 262	7 - 1 - 1055	1 - 14 - 768	3 - 3 - 481	4 - 16 - 194	
5792	6 - 4 - 987	7 - 17 - 700	2 - 6 - 413	3 - 19 - 126	5-7-919	6 - 20 - 632	
	I - 9 - 345	2 - 22 - 58	4 - 10 - 851	5 - 23 - 564	7 - 12 - 277	2 - 0 - 1070	3 - 13 - 783
5793	5 - 2 - 496	6 - 15 - 209	1 - 3 - 1002	2 - 16 - 715	4 - 5 - 428	5 - 18 - 141	
5704	7 - 6 - 934	1 - 19 - 647	3 - 8 - 360	4 - 21 - 73	6 - 9 - 866	7 - 22 - 579	
5794	2 - II - 292	4-0-5	5 - 12 - 798	7 - 1 - 511	I - I4 - 224	3 - 2 - 1017	
5705	4 - 15 - 730	6 - 4 - 443	7 - 17 - 156	2 - 5 - 949	3 - 18 - 662	5 - 7 - 375	6 - 20 - 88
5795	1 - 8 - 881	2 - 21 - 594	4 - 10 - 307	5 - 23 - 20	7 - 11 - 813	2 - 0 - 526	
5796	3 - 13 - 239	5 - 1 - 1032	6 - 14 - 745	1 - 3 - 458	2 - 16 - 171	4 - 4 - 964	
	5 - 17 - 677	7 - 6 - 390	1 - 19 - 103	3 - 7 - 896	4 - 20 - 609	6 - 9 - 322	
5797	7 - 22 - 35	2 - 10 - 828	3 - 23 - 541	5 - 12 - 254	7 - 0 - 1047	1 - 13 - 760	
3/2/	3 - 2 - 473	4 - 15 - 186	6 - 3 - 979	7 - 16 - 692	2 - 5 - 405	3 - 18 - 118	
5798	5 - 6 - 911	6 - 19 - 624	1 - 8 - 337	2 - 21 - 50	4 - 9 - 843	5 - 22 - 556	7 - II - 269
	1 - 23 - 1062	3 - 12 - 775	5 - 1 - 488	6 - 14 - 201	I - 2 - 994	2 - 15 - 707	
5799	4 - 4 - 420	5 - 17 - 133	7 - 5 - 926	1 - 18 - 639	3 - 7 - 352	4 - 20 - 65	
3/22	6 - 8 - 858	7 - 21 - 571	2 - 10 - 284	3 - 22 - 1077	5 - II - 790	7 - 0 - 503	
5800	1 - 13 - 216	3 - I - 1009	4 - 14 - 722	6 - 3 - 435	7 - 16 - 148	2 - 4 - 941	
	3 - 17 - 654	5 - 6 - 367	6 - 19 - 80	1 - 7 - 873	2 - 20 - 586	4 - 9 - 299	
5801	5 - 22 - 12	7 - 10 - 805	1 - 23 - 518	3 - 12 - 231	5 - 0 - 1024	6 - 13 - 737	I - 2 - 450
	2 - 15 - 163	4 - 3 - 956	5 - 16 - 669	7 - 5 - 382	1 - 18 - 95	3 - 6 - 888	
5802	4 - 19 - 601	6 - 8 - 314	7 - 21 - 27	2 - 9 - 820	3 - 22 - 533	5 - 11 - 246	
	6 - 23 - 1039	I - I2 - 752	3 - 1 - 465	4 - 14 - 178	6 - 2 - 971	7 - 15 - 684	
5803	2 - 4 - 397	3 - 17 - 110	5 - 5 - 903	6 - 18 - 616	I - 7 - 329	2 - 20 - 42	4 - 8 - 835
	5 - 21 - 548	7 - 10 - 261	I - 22 - 1054	3 - 11 - 767	5-0-480	6 - 13 - 193	
5804	1-1-986	2 - 14 - 699	4 - 3 - 412	5 - 16 - 125	7 - 4 - 918	1 - 17 - 631	
	3 - 6 - 344	4 - 19 - 57	6 - 7 - 850	7 - 20 - 563	2 - 9 - 276	3 - 21 - 1069	
5805	5 - 10 - 782	6 - 23 - 495	I - I2 - 208	3 - 0 - 1001	4 - 13 - 714	6 - 2 - 427	
	7 - 15 - 140	2 - 3 - 933	3 - 16 - 646	5 - 5 - 359	6 - 18 - 72	1 - 6 - 865	
5806	2 - 19 - 578	4 - 8 - 291	5 - 21 - 4	7 - 9 - 797	I - 22 - 510	3 - II - 223	4 - 23 - 1016
	6 - 12 - 729	I - I - 442	2 - 14 - 155	4-2-948	5 - 15 - 661	7 - 4 - 374	
5807	1 - 17 - 87	3-5-880	4 - 18 - 593	6 - 7 - 306	7 - 20 - 19	2 - 8 - 812	
	3 - 21 - 525	5 - 10 - 238	6 - 22 - 1031	I - II - 744	3-0-457	4 - 13 - 170	
5808	6-1-963	7 - 14 - 676	2 - 3 - 389	3 - 16 - 102	5 - 4 - 895	6 - 17 - 608	
	1 - 6 - 321	2 - 19 - 34	4 - 7 - 827	5 - 20 - 540	7 - 9 - 253	1 - 21 - 1046	
5809	3 - 10 - 759	4 - 23 - 472	6 - 12 - 185	1-0-978	2 - 13 - 691	4 - 2 - 404	5 - 15 - 117
	7 - 3 - 910	1 - 16 - 623	3 - 5 - 336	4 - 18 - 49	6 - 6 - 842	7 - 19 - 555	
5810	2 - 8 - 268	3 - 20 - 1061	5 - 9 - 774	6 - 22 - 487	I - II - 200	2 - 23 - 993	
	4 - 12 - 706	6 - 1 - 419	7 - 14 - 132	2 - 2 - 925	3 - 15 - 638	5 - 4 - 351	
5811	6 - 17 - 64	1 - 5 - 857	2 - 18 - 570	4-7-283	5 - 19 - 1076	7 - 8 - 789	
-	I - 2I - 502	3 - 10 - 215	4 - 22 - 1008	6 - II - 72I	I - 0 - 434	2 - 13 - 147	6.6.208
5812	4-1-940	5 - 14 - 653 2 - 7 - 804	7 - 3 - 366	1 - 16 - 79 5 - 9 - 230	3 - 4 - 872 6 - 21 - 1023	4 - 17 - 585	6 - 6 - 298
	7 - 19 - II		3-20-517		2 - 2 - 381	1 - 10 - 736	
5813	2 - 23 - 449 5 - 3 - 887	4 - 12 - 162 6 - 16 - 600	6 - 0 - 955 1 - 5 - 313	7 - 13 - 668 2 - 18 - 26	4 - 6 - 819	3 - 15 - 94	
	7 - 8 - 245	1 - 20 - 1038	3 - 9 - 751	4 - 22 - 464	6 - 11 - 177	5 - 19 - 532	2-12-682
5814	4-1-396	5 - 14 - 109	7-2-902	1 - 15 - 615	3 - 4 - 328	7 - 23 - 970 4 - 17 - 41	2 - 12 - 683
	6 - 5 - 834	7 - 18 - 547	2 - 7 - 260	3 - 19 - 1053	5 - 8 - 766	6 - 21 - 479	
5815	I - IO - I92	2 - 22 - 985	4 - 11 - 698	6-0-411	7 - 13 - 124	2 - 1 - 917	
	3 - 14 - 630	5 - 3 - 343	6 - 16 - 56	1 - 4 - 849	2 - 17 - 562	4 - 6 - 275	
5816	5 - 18 - 1068	7 - 7 - 781	I - 20 - 494	3 - 9 - 207	4 - 21 - 1000	6-10-713	
	, 10 1000	/ / / / / / / / / / / / / / / / / / / /	> T) T	, , , 20/	, 21 1000	0 10 /19	

	Tishrei	Marḥeshvan	Kislev	Tevet	Shevat	Adar	Adar II
	Nisan	Iyyar	Sivan	Tammuz	Av	Elul	11000111
	7 - 23 - 426	2 - 12 - 139	4 - 0 - 932	5 - 13 - 645	7 - 2 - 358	1 - 15 - 71	3 - 3 - 864
5817	4 - 16 - 577	6-5-290	7 - 18 - 3	2 - 6 - 796	3 - 19 - 509	5 - 8 - 222	
	6 - 20 - 1015	I - 9 - 728	2 - 22 - 44I	4 - II - I54	5 - 23 - 947	7 - 12 - 660	
5818	2 - I - 373	3 - 14 - 86	5 - 2 - 879	6 - 15 - 592	1 - 4 - 305	2 - 17 - 18	
	4 - 5 - 811	5 - 18 - 524	7 - 7 - 237	I - 19 - 1030	3 - 8 - 743	4 - 21 - 456	
5819	6 - 10 - 169	7 - 22 - 962	2 - 11 - 675	4 - 0 - 388	5 - 13 - 101	7 - 1 - 894	
	1 - 14 - 607	3 - 3 - 320	4 - 16 - 33	6 - 4 - 826	7 - 17 - 539	2 - 6 - 252	3 - 18 - 1045
5820	5 - 7 - 758	6 - 20 - 471	1 - 9 - 184	2 - 21 - 977	4 - 10 - 690	5 - 23 - 403	
-0	7 - 12 - 116	2 - 0 - 909	3 - 13 - 622	5 - 2 - 335	6 - 15 - 48	1 - 3 - 841	
5821	2 - 16 - 554	4 - 5 - 267	5 - 17 - 1060	7 - 6 - 773	1 - 19 - 486	3 - 8 - 199	
.000	4 - 20 - 992	6-9-705	7 - 22 - 418	2 - 11 - 131	3 - 23 - 924	5 - 12 - 637	7 - 1 - 350
5822	1 - 14 - 63	3 - 2 - 856	4 - 15 - 569	6 - 4 - 282	7 - 16 - 1075	2 - 5 - 788	
	3 - 18 - 501	5 - 7 - 214	6 - 19 - 1007	I - 8 - 720	2 - 21 - 433	4 - 10 - 146	
5823	5 - 22 - 939	7 - 11 - 652	2 - 0 - 365	3 - 13 - 78	5 - 1 - 871	6 - 14 - 584	
5824	I - 3 - 297	2 - 16 - 10	4 - 4 - 803	5 - 17 - 516	7 - 6 - 229	1 - 18 - 1022	
3024	3 - 7 - 735	4 - 20 - 448	6 - 9 - 161	7 - 21 - 954	2 - 10 - 667	3 - 23 - 380	
5825	5 - 12 - 93	7 - 0 - 886	1 - 13 - 599	3 - 2 - 312	4 - 15 - 25	6 - 3 - 818	7 - 16 - 531
5025	2 - 5 - 244	3 - 17 - 1037	5 - 6 - 750	6 - 19 - 463	1 - 8 - 176	2 - 20 - 969	
5826	4 - 9 - 682	5 - 22 - 395	7 - 11 - 108	I - 23 - 90I	3 - 12 - 614	5 - I - 327	
	6 - 14 - 40	I - 2 - 833	2 - 15 - 546	4 - 4 - 259	5 - 16 - 1052	7 - 5 - 765	
5827	1 - 18 - 478	3 - 7 - 191	4 - 19 - 984	6 - 8 - 697	7 - 21 - 410	2 - 10 - 123	
	3 - 22 - 916	5 - 11 - 629	7 - 0 - 342	1 - 13 - 55	3 - 1 - 848	4 - 14 - 561	
5828	6 - 3 - 274	7 - 15 - 1067	2 - 4 - 780	3 - 17 - 493	5 - 6 - 206	6 - 18 - 999	I - 7 - 712
	2 - 20 - 425	4 - 9 - 138	5 - 21 - 931	7 - 10 - 644	I - 23 - 357	3 - 12 - 70	
5829	5-0-863	6 - 13 - 576	1 - 2 - 289	2 - 15 - 2	4 - 3 - 795	5 - 16 - 508	
	7 - 5 - 221	I - I7 - I0I4	3 - 6 - 727	4 - 19 - 440	6 - 8 - 153	7 - 20 - 946	
5830	2 - 9 - 659	3 - 22 - 372	5 - 11 - 85	6 - 23 - 878	1 - 12 - 591	3 - I - 304	
	4 - 14 - 17	6 - 2 - 810	7 - 15 - 523	2 - 4 - 236	3 - 16 - 1029	5-5-742	0
5831	6 - 18 - 455	1 - 7 - 168	2 - 19 - 961	4 - 8 - 674	5 - 21 - 387	7 - 10 - 100	I - 22 - 893
	3 - 11 - 606	5 - 0 - 319	6 - 13 - 32	1-1-825	2 - 14 - 538	4-3-251	
5832	5 - 15 - 1044	7 - 4 - 757	I - I7 - 470	3 - 6 - 183	4 - 18 - 976	6 - 7 - 689	
	7 - 20 - 402	2 - 9 - II5	3 - 21 - 908	5-10-621	6 - 23 - 334	I - I2 - 47	TO8
5833	3-0-840	4 - 13 - 553	6 - 2 - 266	7 - 14 - 1059	2 - 3 - 772	3 - 16 - 485 7 - 9 - 636	5 - 5 - 198
	6 - 17 - 991 I - 22 - 349	1 - 6 - 704 3 - 11 - 62	2 - 19 - 417 4 - 23 - 855	4 - 8 - 130 6 - 12 - 568	5 - 20 - 923 I - I - 28I	2 - 13 - 1074	
5834	4 - 2 - 787	5 - 15 - 500	7 - 4 - 213	1 - 16 - 1006	3 - 5 - 719	4 - 18 - 432	
	6 - 7 - 145	7 - 19 - 938	2 - 8 - 651	3 - 2I - 364	5 - 10 - 77	6 - 22 - 870	
5835	1 - 11 - 583	3 - 0 - 296	4 - 13 - 9	6-1-802	7 - 14 - 515	2 - 3 - 228	
	3 - 15 - 1021	5 - 4 - 734	6 - 17 - 447	1 - 6 - 160	2 - 18 - 953	4 - 7 - 666	5 - 20 - 379
5836	7-9-92	I - 2I - 885	3 - 10 - 598	4 - 23 - 311	6 - 12 - 24	1-0-817	
	2 - 13 - 530	4 - 2 - 243	5 - 14 - 1036	7 - 3 - 749	I - I6 - 462	3 - 5 - 175	
5837	4 - 17 - 968	6 - 6 - 681	7 - 19 - 394	2 - 8 - 107	3 - 20 - 900	5 - 9 - 613	
	6 - 22 - 326	I - II - 39	2 - 23 - 832	4 - 12 - 545	6 - 1 - 258	7 - 13 - 1051	
5838	2 - 2 - 764	3 - 15 - 477	5 - 4 - 190	6 - 16 - 983	1-5-696	2 - 18 - 409	
	4 - 7 - 122	5 - 19 - 915	7 - 8 - 628	I - 2I - 34I	3 - 10 - 54	4 - 22 - 847	6 - 11 - 560
5839	I - O - 273	2 - 12 - 1066	4 - I - 779	5 - 14 - 492	7 - 3 - 205	1 - 15 - 998	
-0.	3 - 4 - 711	4 - 17 - 424	6 - 6 - 137	7 - 18 - 930	2 - 7 - 643	3 - 20 - 356	
5840	5 - 9 - 69	6 - 21 - 862	1 - 10 - 575	2 - 23 - 288	4 - I2 - I	6-0-794	
٠.٥	7 - 13 - 507	2 - 2 - 220	3 - 14 - 1013	5 - 3 - 726	6 - 16 - 439	I - 5 - I52	2 - I7 - 945
5841	4 - 6 - 658	5 - 19 - 371	7 - 8 - 84	I - 20 - 877	3 - 9 - 590	4 - 22 - 303	

	Tishrei Nisan	Marḥeshvan Iyyar	Kislev Sivan	Tevet Tammuz	Shevat Av	Adar Elul	Adar II
	6 - 11 - 16	7 - 23 - 809	2 - 12 - 522	4 - I - 235	5 - 13 - 1028	7 - 2 - 741	
5842	1 - 15 - 454	3 - 4 - 167	4 - 16 - 960	6 - 5 - 673	7 - 18 - 386	2 - 7 - 99	
	3 - 19 - 892	5 - 8 - 605	6 - 21 - 318	1 - 10 - 31	2 - 22 - 824	4 - II - 537	
5843	6-0-250	7 - 12 - 1043	2 - 1 - 756	3 - 14 - 469	5 - 3 - 182	6 - 15 - 975	
-0	1 - 4 - 688	2 - 17 - 401	4 - 6 - 114	5 - 18 - 907	7-7-620	I - 20 - 333	3 - 9 - 46
5844	4 - 21 - 839	6 - 10 - 552	7 - 23 - 265	2 - 11 - 1058	4 - 0 - 771	5 - 13 - 484	
-0.15	7 - 2 - 197	I - I4 - 990	3 - 3 - 703	4 - 16 - 416	6 - 5 - 129	7 - 17 - 922	
5845	2 - 6 - 635	3 - 19 - 348	5 - 8 - 61	6 - 20 - 854	1 - 9 - 567	2 - 22 - 280	
5846	4 - 10 - 1073	5 - 23 - 786	7 - I2 - 499	2 - I - 2I2	3 - 13 - 1005	5 - 2 - 718	
5040	6 - 15 - 431	I - 4 - I44	2 - 16 - 937	4 - 5 - 650	5 - 18 - 363	7 - 7 - 76	
5847	1 - 19 - 869	3 - 8 - 582	4 - 2I - 295	6 - 10 - 8	7 - 22 - 801	2 - 11 - 514	4 - 0 - 227
304/	5 - 12 - 1020	7 - I - 733	1 - 14 - 446	3 - 3 - 159	4 - 15 - 952	6 - 4 - 665	
5848	7 - 17 - 378	2 - 6 - 91	3 - 18 - 884	5 - 7 - 597	6 - 20 - 310	I - 9 - 23	
5040	2 - 21 - 816	4 - 10 - 529	5 - 23 - 242	7 - 11 - 1035	2-0-748	3 - 13 - 461	
5849	5 - 2 - 174	6 - 14 - 967	1 - 3 - 680	2 - 16 - 393	4 - 5 - 106	5 - 17 - 899	
3049	7 - 6 - 612	I - 19 - 325	3 - 8 - 38	4 - 20 - 831	6 - 9 - 544	7 - 22 - 257	
5850	2 - 10 - 1050	3 - 23 - 763	5 - 12 - 476	7 - 1 - 189	1 - 13 - 982	3 - 2 - 695	4 - 15 - 408
	6 - 4 - 121	7 - 16 - 914	2 - 5 - 627	3 - 18 - 340	5 - 7 - 53	6 - 19 - 846	
5851	1 - 8 - 559	2 - 2I - 272	4 - 9 - 1065	5 - 22 - 778	7 - 11 - 491	2 - 0 - 204	
3031	3 - 12 - 997	5 - 1 - 710	6 - 14 - 423	1 - 3 - 136	2 - 15 - 929	4 - 4 - 642	
5852	5 - 17 - 355	7 - 6 - 68	1 - 18 - 861	3 - 7 - 574	4 - 20 - 287	6-9-0	7 - 21 - 793
	2 - 10 - 506	3 - 23 - 219	5 - 11 - 1012	7 - 0 - 725	1 - 13 - 438	3 - 2 - 151	
5853	4 - 14 - 944	6 - 3 - 657	7 - 16 - 370	2 - 5 - 83	3 - 17 - 876	5 - 6 - 589	
	6 - 19 - 302	1 - 8 - 15	2 - 20 - 808	4 - 9 - 521	5 - 22 - 234	7 - 10 - 1027	
5854	I - 23 - 740	3 - 12 - 453	5 - 1 - 166	6 - 13 - 959	I - 2 - 672	2 - 15 - 385	
	4-4-98	5 - 16 - 891	7-5-604	1 - 18 - 317	3 - 7 - 30	4 - 19 - 823	
5855	6 - 8 - 536	7 - 2I - 249	2 - 9 - 1042	3 - 22 - 755	5 - 11 - 468	7 - 0 - 181	I - I2 - 974
	3 - 1 - 687	4 - 14 - 400	6 - 3 - 113	7 - 15 - 906	2 - 4 - 619	3 - 17 - 332	
5856	5 - 6 - 45	6 - 18 - 838	1 - 7 - 551	2 - 20 - 264	4 - 8 - 1057	5 - 21 - 770	
	7 - 10 - 483	1 - 23 - 196	3 - II - 989	5-0-702	6 - 13 - 415	I - 2 - I28	
5857	2 - 14 - 921	4 - 3 - 634	5 - 16 - 347	7-5-60	1 - 17 - 853	3 - 6 - 566	
	4 - 19 - 279	6 - 7 - 1072	7 - 20 - 785	2 - 9 - 498	3 - 22 - 211	5 - 10 - 1004	
5858	6 - 23 - 717	I - I2 - 430	3 - I - I43	4 - 13 - 936	6 - 2 - 649	7 - 15 - 362	2 - 4 - 75
	3 - 16 - 868	5 - 5 - 581	6 - 18 - 294	I-7-7	2 - 19 - 800	4 - 8 - 513	
5859	5 - 21 - 226	7 - 9 - 1019	I - 22 - 732	3 - II - 445	5 - 0 - 158	6 - 12 - 951	
	1-1-664	2 - 14 - 377	4-3-90	5 - 15 - 883	7 - 4 - 596	I - I7 - 309	
5860	3 - 6 - 22	4 - 18 - 815	6 - 7 - 528	7 - 20 - 241	2 - 8 - 1034	3 - 21 - 747	5 - 10 - 460
	6 - 23 - 173	1 - 11 - 966	3-0-679	4 - 13 - 392	6 - 2 - 105	7 - 14 - 898	
5861	2 - 3 - 611	3 - 16 - 324	5 - 5 - 37	6 - 17 - 830	1 - 6 - 543	2 - 19 - 256	
	4-7-1049	5 - 20 - 762	7 - 9 - 475	I - 22 - 188	3 - 10 - 981	4 - 23 - 694	
5862	6 - 12 - 407	I - I - I2O	2 - 13 - 913	4 - 2 - 626	5 - 15 - 339	7 - 4 - 52	
	1 - 16 - 845	3-5-558	4 - 18 - 271	6 - 6 - 1064	7 - 19 - 777	2 - 8 - 490	(- (:-
5863	3 - 21 - 203	5 - 9 - 996	6 - 22 - 709	I - II - 422	3 - 0 - 135	4 - 12 - 928	6 - 1 - 641
	7 - 14 - 354	2 - 3 - 67	3 - 15 - 860	5 - 4 - 573	6 - 17 - 286	1 - 5 - 1079	
5864	2 - 18 - 792	4-7-505	5 - 20 - 218	7 - 8 - 1011	I - 2I - 724	3 - 10 - 437	
	4 - 23 - 150	6 - 11 - 943	1-0-656	2 - 13 - 369	4-2-82	5 - 14 - 875	
5865	7-3-588	1 - 16 - 301	3-5-14	4 - 17 - 807	6-6-520	7 - 19 - 233	
	2 - 7 - 1026	3 - 20 - 739	5 - 9 - 452	6 - 22 - 165	1 - 10 - 958	2 - 23 - 671	6 76 000
5866	4 - 12 - 384	6-1-97	7 - 13 - 890	2 - 2 - 603	3 - 15 - 316	5-4-29	6 - 16 - 822
	1 - 5 - 535	2 - 18 - 248	4 - 6 - 1041	5 - 19 - 754	7 - 8 - 467	I - 2I - 180	

	Tishrei	Marḥeshvan	Kislev	Tevet	Shevat	Adar	Adar II
	Nisan	Iyyar	Sivan	Tammuz	Av	Elul	
	3 - 9 - 973	4 - 22 - 686	6 - 11 - 399	I - O - II2	2 - 12 - 905	4 - 1 - 618	
5867	5 - 14 - 331	7 - 3 - 44	1 - 15 - 837	3 - 4 - 550	4 - 17 - 263	6 - 5 - 1056	
	7 - 18 - 769	2 - 7 - 482	3 - 20 - 195	5 - 8 - 988	6 - 21 - 701	I - IO - 4I4	
5868	2 - 23 - 127	4 - II - 920	6 - 0 - 633	7 - 13 - 346	2 - 2 - 59	3 - 14 - 852	
	5 - 3 - 565	6 - 16 - 278	I - 4 - IO7I	2 - 17 - 784	4 - 6 - 497	5 - 19 - 210	7 - 7 - 1003
5869	1 - 20 - 716	3 - 9 - 429	4 - 22 - 142	6 - 10 - 935	7 - 23 - 648	2 - 12 - 361	
.070	4 - 1 - 74	5 - 13 - 867	7 - 2 - 580	I - I5 - 293	3-4-6	4 - 16 - 799	
5870	6 - 5 - 512	7 - 18 - 225	2 - 6 - 1018	3 - 19 - 731	5 - 8 - 444	6 - 21 - 157	
5871	I - 9 - 950	2 - 22 - 663	4 - 11 - 376	6 - 0 - 89	7 - 12 - 882	2 - I - 595	3 - 14 - 308
	5 - 3 - 21	6 - 15 - 814	I - 4 - 527	2 - 17 - 240	4 - 5 - 1033	5 - 18 - 746	
5872	7 - 7 - 459	I - 20 - I72	3 - 8 - 965	4 - 21 - 678	6 - 10 - 391	7 - 23 - 104	
	2 - 11 - 897	4 - 0 - 610	5 - 13 - 323	7 - 2 - 36	1 - 14 - 829	3 - 3 - 542	
5873	4 - 16 - 255	6 - 4 - 1048	7 - 17 - 761	2 - 6 - 474	3 - 19 - 187	5-7-980	
	6 - 20 - 693	1-9-406	2 - 22 - 119	4 - 10 - 912	5 - 23 - 625	7 - 12 - 338	
5874	2 - I - 5I	3 - 13 - 844	5 - 2 - 557	6 - 15 - 270	1 - 3 - 1063	2 - 16 - 776	4 - 5 - 489
	5 - 18 - 202	7 - 6 - 995	1 - 19 - 708	3 - 8 - 421	4 - 2I - I34	6 - 9 - 927	
5875	7 - 22 - 640	2 - II - 353	4-0-66	5 - 12 - 859	7 - 1 - 572	1 - 14 - 285	
	3 - 2 - 1078	4 - 15 - 791	6 - 4 - 504	7 - 17 - 217	2 - 5 - 1010	3 - 18 - 723	
5876	5 - 7 - 436	6 - 20 - 149	1 - 8 - 942	2 - 21 - 655	4 - 10 - 368	5 - 23 - 81	
	7 - 11 - 874	2 - 0 - 587	3 - 13 - 300	5 - 2 - 13	6 - 14 - 806	1 - 3 - 519	(=0
5877	2 - 16 - 232	4 - 4 - 1025	5 - 17 - 738 2 - 10 - 889	7 - 6 - 451	1 - 19 - 164	3 - 7 - 957	4 - 20 - 670
	6 - 9 - 383 I - I3 - 82I	7 - 22 - 96		3 - 23 - 602 6 - 3 - 1040	5 - 12 - 315 7 - 16 - 753	7 - I - 28 2 - 5 - 466	
5878	3 - 18 - 179	3 - 2 - 534 5 - 6 - 972	4 - 15 - 247 6 - 19 - 685	1 - 8 - 398	2 - 2I - III	4-9-904	
	5 - 22 - 617	7 - II - 330	2 - 0 - 43	3 - 12 - 836	5-1-549	6 - 14 - 262	I - 2 - 1055
5879	2 - 15 - 768	4 - 4 - 481	5 - 17 - 194	7 - 5 - 987	1 - 18 - 700	3 - 7 - 413	,,,
-00-	4 - 20 - 126	6 - 8 - 919	7 - 21 - 632	2 - 10 - 345	3 - 23 - 58	5 - 11 - 851	
5880	7 - 0 - 564	1 - 13 - 277	3 - 1 - 1070	4 - 14 - 783	6 - 3 - 496	7 - 16 - 209	
-QQT	2 - 4 - 1002	3 - 17 - 715	5 - 6 - 428	6 - 19 - 141	I - 7 - 934	2 - 20 - 647	
5881	4 - 9 - 360	5 - 22 - 73	7 - 10 - 866	I - 23 - 579	3 - 12 - 292	5 - 1 - 5	
5882	6 - 13 - 798	1 - 2 - 511	2 - 15 - 224	4 - 3 - 1017	5 - 16 - 730	7 - 5 - 443	1 - 18 - 156
	3 - 6 - 949	4 - 19 - 662	6 - 8 - 375	7 - 21 - 88	2 - 9 - 881	3 - 22 - 594	
5883	5 - 11 - 307	7 - 0 - 20	1 - 12 - 813	3 - 1 - 526	4 - 14 - 239	6 - 2 - 1032	
	7 - 15 - 745	2 - 4 - 458	3 - 17 - 171	5-5-964	6 - 18 - 677	1 - 7 - 390	
5884	2 - 20 - 103	4 - 8 - 896	5 - 21 - 609	7 - 10 - 322	I - 23 - 35	3 - 11 - 828	
	5 - 0 - 541	6 - 13 - 254	I - I - 1047	2 - 14 - 760	4 - 3 - 473	5 - 16 - 186	
5885	7 - 4 - 979	1 - 17 - 692	3 - 6 - 405	4 - 19 - 118	6 - 7 - 911	7 - 20 - 624	2 - 9 - 337
	3 - 22 - 50	5 - 10 - 843	6 - 23 - 556	1 - 12 - 269	3 - 0 - 1062	4 - 13 - 775	
5886	6 - 2 - 488	7 - 15 - 201	2 - 3 - 994	3 - 16 - 707	5-5-420	6 - 18 - 133	
	1 - 6 - 926	2 - 19 - 639	4 - 8 - 352	5 - 21 - 65	7 - 9 - 858	I - 22 - 57I	
5887	3 - 11 - 284	4 - 23 - 1077	6 - 12 - 790	1-1-503	2 - 14 - 216	4 - 2 - 1009	
	5 - 15 - 722 7 - 20 - 80	7 - 4 - 435 2 - 8 - 873	1 - 17 - 148 3 - 21 - 586	3 - 5 - 94I 5 - 10 - 299	4 - 18 - 654 6 - 23 - 12	6 - 7 - 367 1 - 11 - 805	3 - 0 - 518
5888	4 - 13 - 231	6-1-1024	7 - 14 - 737	2 - 3 - 450	3 - 16 - 163	5-4-956	, , , , , , ,
	6 - 17 - 669	1 - 6 - 382	2 - 19 - 95	4-7-888	5 - 20 - 601	7 - 9 - 314	
5889	I - 22 - 27	3 - 10 - 820	4 - 23 - 533	6 - 12 - 246	1 - 0 - 1039	2 - 13 - 752	
	4 - 2 - 465	5 - 15 - 178	7 - 3 - 971	1 - 16 - 684	3 - 5 - 397	4 - 18 - 110	6-6-903
5890	7 - 19 - 616	2 - 8 - 329	3 - 2I - 42	5 - 9 - 835	6 - 22 - 548	I - II - 26I	- 707
	2 - 23 - 1054	4 - 12 - 767	6 - 1 - 480	7 - 14 - 193	2 - 2 - 986	3 - 15 - 699	
5891	5 - 4 - 412	6 - 17 - 125	1 - 5 - 918	2 - 18 - 631	4 - 7 - 344	5 - 20 - 57	
		, ,					1

	Tishrei	Marḥeshvan	Kislev	Tevet	Shevat	Adar	Adar II
	Nisan	Iyyar	Sivan	Tammuz	Av	Elul	
- Roa	7 - 8 - 850	1 - 21 - 563	3 - 10 - 276	4 - 22 - 1069	6 - 11 - 782	I - O - 495	
5892	2 - 13 - 208	4 - I - 1001	5 - 14 - 714	7 - 3 - 427	1 - 16 - 140	3 - 4 - 933	
- Roa	4 - 17 - 646	6 - 6 - 359	7 - 19 - 72	2 - 7 - 865	3 - 20 - 578	5 - 9 - 291	6 - 22 - 4
5893	I - IO - 797	2 - 23 - 510	4 - 12 - 223	6 - 0 - 1016	7 - 13 - 729	2 - 2 - 442	
5804	3 - 15 - 155	5 - 3 - 948	6 - 16 - 661	I - 5 - 374	2 - 18 - 87	4 - 6 - 880	
5894	5 - 19 - 593	7 - 8 - 306	1 - 21 - 19	3 - 9 - 812	4 - 22 - 525	6 - 11 - 238	
5805	7 - 23 - 1031	2 - 12 - 744	4 - I - 457	5 - 14 - 170	7 - 2 - 963	1 - 15 - 676	
5895	3 - 4 - 389	4 - 17 - 102	6 - 5 - 895	7 - 18 - 608	2 - 7 - 321	3 - 20 - 34	
5896	5 - 8 - 827	6 - 21 - 540	I - IO - 253	2 - 22 - 1046	4 - II - 759	6-0-472	7 - 13 - 185
5090	2 - 1 - 978	3 - 14 - 691	5 - 3 - 404	6 - 16 - 117	1 - 4 - 910	2 - 17 - 623	
5897	4 - 6 - 336	5 - 19 - 49	7 - 7 - 842	I - 20 - 555	3 - 9 - 268	4 - 21 - 1061	
309/	6 - 10 - 774	7 - 23 - 487	2 - 12 - 200	4 - 0 - 993	5 - 13 - 706	7 - 2 - 419	
5898	1 - 15 - 132	3 - 3 - 925	4 - 16 - 638	6 - 5 - 351	7 - 18 - 64	2 - 6 - 857	3 - 19 - 570
5090	5 - 8 - 283	6 - 20 - 1076	1 - 9 - 789	2 - 22 - 502	4 - II - 2I5	5 - 23 - 1008	
£800	7 - 12 - 721	2 - I - 434	3 - 14 - 147	5 - 2 - 940	6 - 15 - 653	1 - 4 - 366	
5899	2 - 17 - 79	4 - 5 - 872	5 - 18 - 585	7 - 7 - 298	I - 20 - II	3 - 8 - 804	

Selected Holiday's Gregorian Dates

Year:	5784	5785	5786	5787	5788	5789	5790	5791	5792
Gregorian Years	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2031-2032
Kevi'a	703	521	315	725	723	506	115	723	517
Rosh Hashana	Sat 09-16	Thu 10-03	Tue 09-23	Sat 09-12	Sat 10-02	Thu 09-21	Mon 09-10	Sat 09-28	Thu 09-18
Yom Kippur	Mon 09-25	Sat 10-12	Thu 10-02	Mon 09-21	Mon 10-11	Sat 09-30	Wed 09-19	Mon 10-07	Sat 09-27
Sukkot	Sat 09-30	Thu 10-17	Tue 10-07	Sat 09-26	Sat 10-16	Thu 10-05	Mon 09-24	Sat 10-12	Thu 10-02
Ḥanukka	Fri 12-08	Thu 12-26	Mon 12-15	Sat 12-05	Sat 12-25	Wed 12-13	Sun 12-02	Sat 12-21	Wed 12-10
10 Tevet	Fri 12-22	Fri 01-10	Tue 12-30	Sun 12-20	Sun 01-09	Thu 12-28	Sun 12-16	Sun 01-05	Thu 12-25
Purim	Sun 03-24	Fri 03-14	Tue 03-03	Tue 03-23	Sun 03-12	Thu 03-01	Tue 03-19	Sun 03-09	Thu 02-26
Pesaḥ	Tue 04-23	Sun 04-13	Thu 04-02	Thu 04-22	Tue 04-11	Sat 03-31	Thu 04-18	Tue 04-08	Sat 03-27
Shavuʻot	Wed 06-12	Mon 06-02	Fri 05-22	Fri 06-11	Wed 05-31	Sun 05-20	Fri 06-07	Wed 05-28	Sun 05-16
17 Tammuz	Tue 07-23	Sun 07-13	Thu 07-02	Thu 07-22	Tue 07-11	Sun 07-01	Thu 07-18	Tue 07-08	Sun 06-27
9 Av	Tue 08-13	Sun 08-03	Thu 07-23	Thu 08-12	Tue 08-01	Sun 07-22	Thu 08-08	Tue 07-29	Sun 07-18
Year:	5793	5794	5795	5796	5797	5798	5799	5800	5801
Gregorian Years	2032-2033	2033-2034	2034-2035	2035-2036	2036-2037	2037-2038	2038-2039	2039-2040	2040-2041
Kevi'a	205	723	523	506	113	523	517	225	703
Rosh Hashana	Mon 09-06	Sat 09-24	Thu 09-14	Thu 10-04	Mon 09-22	Thu 09-10	Thu 09-30	Mon 09-19	Sat 09-08
Yom Kippur	Wed 09-15	Mon 10-03	Sat 09-23	Sat 10-13	Wed 10-01	Sat 09-19	Sat 10-09	Wed 09-28	Mon 09-17
Sukkot	Mon 09-20	Sat 10-08	Thu 09-28	Thu 10-18	Mon 10-06	Thu 09-24	Thu 10-14	Mon 10-03	Sat 09-22
Ḥanukka	Sun 11-28	Sat 12-17	Thu 12-07	Wed 12-26	Sun 12-14	Thu 12-03	Wed 12-22	Mon 12-12	Fri 11-30
10 Tevet	Sun 12-12	Sun 01-01	Fri 12-22	Thu 01-10	Sun 12-28	Fri 12-18	Thu 01-06	Tue 12-27	Fri 12-14
Purim	Tue 03-15	Sun 03-05	Sun 03-25	Thu 03-13	Sun 03-01	Sun 03-21	Thu 03-10	Tue 02-28	Sun 03-17
Pesaḥ	Thu 04-14	Tue 04-04	Tue 04-24	Sat 04-12	Tue 03-31	Tue 04-20	Sat 04-09	Thu 03-29	Tue 04-16
Shavu'ot	Fri 06-03	Wed 05-24	Wed 06-13	Sun 06-01	Wed 05-20	Wed 06-09	Sun 05-29	Fri 05-18	Wed 06-05
17 Tammuz	Thu 07-14	Tue 07-04	Tue 07-24	Sun 07-13	Tue 06-30	Tue 07-20	Sun 07-10	Thu 06-28	Tue 07-16
9 Av	Thu 08-04	Tue 07-25	Tue 08-14	Sun 08-03	Tue 07-21	Tue 08-10	Sun 07-31	Thu 07-19	Tue 08-06
Year:	5802	5803	5804	5805	5806	5807	5808	5809	5810
Gregorian Years	2041-2042	2042-2043	2043-2044	2044-2045	2045-2046	2046-2047	2047-2048	2048-2049	2049-2050
Kevi'a	517	227	203	521	317	225	701	317	225
Rosh Hashana	Thu 09-26	Mon 09-15	Mon 10-05	Thu 09-22	Tue 09-12	Mon 10-01	Sat 09-21	Tue 09-08	Mon 09-27
Yom Kippur	Sat 10-05	Wed 09-24	Wed 10-14	Sat 10-01	Thu 09-21	Wed 10-10	Mon 09-30	Thu 09-17	Wed 10-06
Sukkot	Thu 10-10	Mon 09-29	Mon 10-19	Thu 10-06	Tue 09-26	Mon 10-15	Sat 10-05	Tue 09-22	Mon 10-11
Ḥanukka	Wed 12-18	Mon 12-08	Sun 12-27	Thu 12-15	Mon 12-04	Mon 12-24	Fri 12-13	Mon 11-30	Mon 12-20
10 Tevet	Thu 01-02	Tue 12-23	Sun 01-10	Fri 12-30	Tue 12-19	Tue 01-08	Fri 12-27	Tue 12-15	Tue 01-04
Purim	Thu 03-06	Thu 03-26	Sun 03-13	Fri 03-03	Thu 03-22	Tue 03-12	Fri 02-28	Thu 03-18	Tue 03-08
Pesaḥ	Sat 04-05	Sat 04-25	Tue 04-12	Sun 04-02	Sat 04-21	Thu 04-11	Sun 03-29	Sat 04-17	Thu 04-07
Shavu'ot	Sun 05-25	Sun 06-14	Wed 06-01	Mon 05-22	Sun 06-10	Fri 05-31	Mon 05-18	Sun 06-06	Fri 05-27
17 Tammuz	Sun 07-06	Sun 07-26	Tue 07-12	Sun 07-02	Sun 07-22	Thu 07-11	Sun 06-28	Sun 07-18	Thu 07-07
9 Av	Sun 07-27	Sun 08-16	Tue 08-02	Sun 07-23	Sun 08-12	Thu 08-01	Sun 07-19	Sun 08-08	Thu 07-28

Luachs for Each Year

5.1 203 Monday-Short-Tuesday (non-leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינג. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Monday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinhas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1-29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of shehehiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר

recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4-22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11-32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are עוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Wednesday and Ledavid.

Shabbat Shuva Vayelech – 6 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1-32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ברקתף is said.

Arvit for the conclusion of Shabbat as usual. Vihi no 'am is omitted.

5.2 225 Monday-Long-Thursday (non-leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Monday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4-22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Wednesday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דור The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Shabbat Shuva Vayelech – 6 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Sheviʻi	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ברקתף is said.

Arvit for the conclusion of Shabbat as usual. Vihi no'am is omitted.

5.3 315 Tuesday-Regular-Thursday (non-leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13-21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. דמאיר is recited in shaḥarit. The Shir Shel Yom is for Wednesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices. **Tzom Gedalia** - **3 Tishrei**

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Thursday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דור The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Shabbat Shuva Vayelech – 5 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Sheviʻi	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ברקתף is said.

Arvit for the conclusion of Shabbat as usual. Vihi no 'am is omitted.

5.4 517 Thursday-Regular-Shabbat (non-leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. *Le'eila le'eila* is included in Kaddish. *Tik'u baḥodesh shofar* are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. מאיר is recited in shaḥarit. The Shir Shel Yom is for Thursday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday. LeDavid is recited after Aleinu.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Friday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana. Avinu Malkeinu is omitted, Kaddish Shalem, etc.

Kabbalat Shabbat is abbreviated, since there is a festival on Friday. Arvit has additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabah. LeDavid is recited.

Kohen	Deuteronomy 32:1-32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha. The Amida includes additions for the 10 Days of Repentence. 「コカラマン is said.

Arvit for the conclusion of Shabbat as usual. Vihi no 'am is said.

Tzom Gedalia – 4 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting. Because the 3rd of Tishrei falls on Shabbat, the fast is pushed off to Sunday.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are עוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Sunday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דור The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

5.5 521 Thursday-Long-Sunday (non-leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Thursday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday. LeDavid is recited after Aleinu.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. דמאיר is recited in shaḥarit. The Shir Shel Yom is for Friday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana. Avinu Malkeinu is omitted, Kaddish Shalem, etc.

Kabbalat Shabbat is abbreviated, since there is a festival on Friday. Arvit has additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha. The Amida includes additions for the 10 Days of Repentence. コカアコン is said.

Arvit for the conclusion of Shabbat as usual. Vihi no am is said.

Tzom Gedalia – 4 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the

First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting. Because the 3rd of Tishrei falls on Shabbat, the fast is pushed off to Sunday.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Sunday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹן דוֹך The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

5.6 701 Shabbat-Short-Sunday (non-leap)

Rosh Hashana I – 1 Tishrei

Kabbalat Shabbat is abbreviated, beginning with השבת מדליקין. The chapter מזמור שיר ליום השבת is omitted. Le'eila le'eila is included in Kaddish beginning with the Kaddish following abbreviated Kabbalat Shabbat. Arvit is chanted in the appropriate tune for Rosh Hashana. Both Veshameru and tik'u bahodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with שושה השלום and המלך הקדוש. These are continued through Yom Kippur. ויכולו

Kiddush is the text for Rosh Hashana, with additions for Shabbat, followed by שהחינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. is recited in shaḥarit. The Shir Shel Yom is for Shabbat, along with LeDavid. Many communities recite Anim Zemirot (either because it is Rosh Hashana or because it is Shabbat). Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into seven aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:8	4 pesukim
Shelishi	Genesis 21:9–21:12	4 pesukim
Revi'i	Genesis 21:13-21:17	5 pesukim
Ḥamishi	Genesis 21:18-21:21	4 pesukim
Shishi	Genesis 21:22–21:27	6 pesukim
Shevi'i	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana with additions for Shabbat.

Shofar is not blown. Musaf includes the additions for Shabbat. ביום השבת should be chanted in the tune for Shabbat.

Afternoon kiddush includes the verses for both Shabbat and Rosh Hashana.

Minḥa begins with Ashrei, Uva Letzion, Ḥatzi Kaddish, and the Torah reading for Haʻazinu.

Kohen	Deuteronomy 32:1-32:3	3 pesukim
Levi	Deuteronomy 32:4-32:6	3 pesukim
Yisrael	Deuteronomy 32:7-32:12	6 pesukim

After the Torah is returned, Ḥatzi Kaddish is said, and the Amida for Rosh Hashana is recited. ברקתך צרק is omitted.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. The havdala paragraph is inserted in the Amida. LeDavid is recited after Aleinu. Kiddush is YaKeNHaZ—Yayin (hagafen), Kiddush (משר בחר בנו וכר), Ner (בורא מאורי), Ner (המבדיל בין קודש לקודש). Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. דמאיר is recited in shaḥarit. The Shir Shel Yom is for Sunday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4-22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before *titkabal* in the Kaddish Shalem following the Amida.

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei

The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Monday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דוד The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Following Tzom Gedalia, liturgical additions continue for the 10 Days of Repentence.

Shabbat Shuva Haazinu – 8 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minha begins as usual, reading from VeZot HaBerakha.

The Amida includes additions for the 10 Days of Repentence. The Amida includes additions for the 10 Days of Repentence.

Arvit for the conclusion of Shabbat as usual. Vihi no 'am is said.

Shabbat Bereshit – 29 Tishrei

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 1:1-2:3	34 pesukim
Levi	Genesis 2:4-2:19	16 pesukim
Shelishi	Genesis 2:20-3:21	27 pesukim
Revi'i	Genesis 3:22-4:18	21 pesukim
Ḥamishi	Genesis 4:19-4:22	4 pesukim
Shishi	Genesis 4:23-5:24	28 pesukim
Shevi'i	Genesis 5:25-6:8	16 pesukim
Maftir	Genesis 6:5-6:8	4 pesukim

Note that different humashim have different aliya breakdowns for this parasha. Make sure to check with leiners that they learned the correct portion. The Haftara for Shabbat Maḥar Ḥodesh is I Samuel 20:18–20:42. Some read the Haftara for Bereishit even when it falls on Mahar Hodesh (Isaiah 42:5–43:10)

The new month of Marḥeshvan (not "Cheshvan") is blessed. See page 8 for the molad. Rosh Ḥodesh is Sunday and Monday.

ראש חודש מרחשון יהיה ביום ראשון וביום שני

Av HaRahamim is omitted. Shabbat Musaf as usual.

Minha for Shabbat. *Tzidkatekha* is omitted for Erev Rosh Hodesh.

Arvit for Motzaei Shabbat includes ya'ale veyavo.

Rosh Hodesh Marheshvan, First day (30 Tishrei)

Shaḥarit for Rosh Ḥodesh. Ya'ale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish, the Torah is returned as usual. No *Lamenatzeaḥ*. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh, Shir shel Yom for Rosh Ḥodesh and Sunday.

Minḥa as usual for weekday, with the addition of *Ya'ale Veyavo* in the Amidah and the omission of *taḥanun*.

Rosh Hodesh Marheshvan, Second Day (1 Marheshvan)

Davening on Rosh Ḥodesh is the same as the first day of Rosh Ḥodesh, except that the Psalm of the Day is for Rosh Ḥodesh and Monday.

Shabbat Noah – 6 Marheshvan

Kabbalat Shabbat and Arvit as usual.

Kohen	Genesis 6:9-6:22	14 pesukim
Levi	Genesis 7:1-7:16	16 pesukim
Shelishi	Genesis 7:17-8:14	22 pesukim
Revi'i	Genesis 8:15-9:7	15 pesukim
Ḥamishi	Genesis 9:8–9:17	10 pesukim
Shishi	Genesis 9:18–10:32	44 pesukim
Sheviʻi	Genesis 11:1–11:32	32 pesukim
Maftir	Genesis 11:29–11:32	4 pesukim

The Haftara for Noach is Isaiah 54:1-55:5. Some congregations say a special misheberakh for those fasting BeHaB.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Lekh Lekha – 13 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 12:1–12:13	13 pesukim
Levi	Genesis 12:14-13:4	11 pesukim
Shelishi	Genesis 13:5–13:18	14 pesukim
Revi'i	Genesis 14:1–14:20	20 pesukim
Ḥamishi	Genesis 14:21–15:6	10 pesukim
Shishi	Genesis 15:7-17:6	37 pesukim
Shevi'i	Genesis 17:7-17:27	21 pesukim
Maftir	Genesis 17:24-17:27	4 pesukim

The Haftara for Lech-Lecha is Isaiah 40:27-41:16.

Shabbat Musaf as usual.

Shabbat Minha as usual.

Shabbat Vayera — 20 Marheshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 18:1–18:14	14 pesukim
Levi	Genesis 18:15–18:33	19 pesukim
Shelishi	Genesis 19:1–19:20	20 pesukim (this aliya has a shalshelet)
Revi'i	Genesis 19:21-21:4	40 pesukim
Ḥamishi	Genesis 21:5–21:21	17 pesukim
Shishi	Genesis 21:22–21:34	13 pesukim
Shevi'i	Genesis 22:1–22:24	24 pesukim
Maftir	Genesis 22:20–22:24	5 pesukim

The Haftara for Vayera is II Kings 4:1-4:37.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Ḥayyei Sara — 27 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 23:1–23:16	16 pesukim
Levi	Genesis 23:17-24:9	13 pesukim
Shelishi	Genesis 24:10-24:26	17 pesukim
Revi'i	Genesis 24:27-24:52	26 pesukim
Ḥamishi	Genesis 24:53-24:67	15 pesukim
Shishi	Genesis 25:1–25:11	11 pesukim
Sheviʻi	Genesis 25:12-25:18	7 pesukim
Maftir	Genesis 25:16-25:18	3 pesukim

The Haftara for Chayei Sara is I Kings 1:1–1:31.

The new month of Kislev is blessed. See page 8 for the molad. Rosh Hodesh is Tuesday.

Av HaRaḥamim is omitted. Shabbat Musaf as usual.

Shabbat Minha as usual.

Rosh Hodesh Kislev — I Kislev

Shaḥarit for Rosh Ḥodesh. Ya'ale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish, the Torah is returned as usual. No *Lamenatzeaḥ*. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh, Shir shel Yom for Rosh Ḥodesh and Tuesday.

Minḥa as usual for weekday, with the addition of Ya'ale Veyavo in the Amidah and the omission of taḥanun.

Shabbat Toledot — 5 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 25:19–26:5	21 pesukim
Levi	Genesis 26:6-26:12	7 pesukim
Shelishi	Genesis 26:13–26:22	10 pesukim
Revi'i	Genesis 26:23–26:29	7 pesukim
Ḥamishi	Genesis 26:30-27:27	33 pesukim
Shishi	Genesis 27:28-28:4	23 pesukim
Shevi'i	Genesis 28:5–28:9	5 pesukim
Maftir	Genesis 28:7–28:9	3 pesukim

The Haftara for Toldot is Malachi 1:1-2:7.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat VaYeitzei — 12 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 28:10–28:22	13 pesukim
Levi	Genesis 29:1–29:17	17 pesukim
Shelishi	Genesis 29:18–30:13	31 pesukim
Revi'i	Genesis 30:14-30:27	14 pesukim
Ḥamishi	Genesis 30:28-31:16	32 pesukim
Shishi	Genesis 31:17-31:42	26 pesukim
Shevi'i	Genesis 31:43-32:3	15 pesukim
Maftir	Genesis 32:1–32:3	3 pesukim

The Haftara for Vayetzei is Hosea 12:13–14:10.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Vayishlah — 19 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 32:4-32:13	10 pesukim
Levi	Genesis 32:14–32:30	17 pesukim
Shelishi	Genesis 32:31–33:5	8 pesukim
Revi'i	Genesis 33:6-33:20	15 pesukim
Ḥamishi	Genesis 34:1–35:11	42 pesukim
Shishi	Genesis 35:12–36:19	37 pesukim
Shevi'i	Genesis 36:20-36:43	24 pesukim
Maftir	Genesis 36:40-36:43	4 pesukim

The Haftara for Vayishlach is Obadiah 1:1-1:21.

Shabbat Musaf as usual.

Shabbat Minha as usual.

Erev Ḥanukka — Thursday 24 Kislev Taḥanun is omitted at Minḥa.

Ḥanukka —24 Kislev (Friday night)

The Ḥanukka Menora is lit in the synagogue after sunset prior to 'arvit in the southern part of the synagogue, with all three of its blessings, beginning with the far right light. 'Arvit includes 'al hanisim, which is included in every amida and in birkat hamazon throughout Ḥanukka (if forgotten, do not repeat the amida or bentshing, though it may be inserted in the paragraph elohai netzor in the amida or in the haraḥaman paragraphs of bentshing).

At home, the Ḥanukka Menora should be lit after sunset (some wait until dusk), beginning with the far right light, following the recitation of the three blessings on the Ḥanukka lighting. It may be lit throughout the night if members of the household are present to see the candles, though it is preferable to light earlier. Each night another flame is added to the left of the flames from the previous night, and the newest candle is lit first.

Ḥanukka candles are lit in shul, without a berahka (one candles). Shaḥarit Friday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:1–7:11	11 pesukim
Levi	Numbers 7:12–7:14	3 pesukim
Shelishi	Numbers 7:15-7:17	3 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Friday and most communities recite *mizmor shir ḥanukkat habayit*.

Minḥa includes 'al hanisim (no taḥanun). Ḥanukka candles (two candles) must be lit before Shabbat candles, and have sufficient fuel to burn until dusk.

Shabbat Ḥanukka Parshat Vayeshev — 26 Kislev

Kabbalat Shabbat and 'arvit as usual, with 'al hanisim.

Shabbat Shaḥarit with 'al hanisim. Full Hallel, Kaddish Shalem . Two Sifrei Torah are taken out of the ark, one for the parsha, one for Ḥanukka Maftir.

Kohen	Genesis 37:1-37:11	11 pesukim
Levi	Genesis 37:12-37:22	11 pesukim
Shelishi	Genesis 37:23-37:36	14 pesukim
Revi'i	Genesis 38:1-38:30	30 pesukim
Ḥamishi	Genesis 39:1-39:6	6 pesukim
Shishi	Genesis 39:7-39:23	17 pesukim
Shevi'i	Genesis 40:1-40:23	23 pesukim
Maftir	Numbers 7:18-7:23	6 pesukim

After the seven aliyot from the parsha are read, both Sifrei Torah are placed on the table and Ḥatzi Kaddish is recited. Maftir is read, followed by the Haftara. The Haftara for the first Shabbat of Ḥanukka is Zechariah 2:14–4:7. The new month of Tevet is blessed. See page 8 for the molad. Rosh Ḥodesh is Wednesday.

ראש חודש טבת יהיה ביום רביעי

Musaf as usual with 'al hanisim. Most recite Psalm 30 (mizmor shir ḥanukkat habayit ledavid) following the Psalm for Shabbat.

Minha as usual with 'al hanisim.

Third Day of Hanukka — 27 Kislev

'Arvit for the conclusion of Shabbat. Havdala and 'al hanisim in the Amidah, Ḥatzi Kaddish, vihi no 'am, etc. The Ḥanukka Menora is lit (three candles), then aleinu and havdala. At home, havdala is recited before the Ḥanukka candles are lit (three candles), which should be done as soon as practicable.

Ḥanukka candles are lit in shul, without a berahka (three candles). Shaḥarit Sunday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:24-7:26	3 pesukim
Levi	Numbers 7:27-7:29	3 pesukim
Shelishi	Numbers 7:30-7:35	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Sunday and most communities recite *mizmor shir ḥanukkat habayit*.

Fourth Day of Hanukka— 28 Kislev

The Ḥanukka Menora is lit before 'arvit with berakhot (four candles), as in previous days. 'Arvit includes 'al hanisim. The Ḥanukka Menora is lit at home (four candles).

Ḥanukka candles are lit in shul, without a berahka (four candles). Shaḥarit Monday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:30-7:32	3 pesukim
Levi	Numbers 7:33-7:35	3 pesukim
Shelishi	Numbers 7:36-7:41	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Monday and most communities recite *mizmor shir ḥanukkat habayit*.

Fifth Day of Ḥanukka— 29 Kislev

The Ḥanukka Menora is lit before 'arvit with berakhot (fifth candles), as in previous days. 'Arvit includes 'al hanisim. The Ḥanukka Menora is lit at home (fifth candles).

Hanukka candles are lit in shul, without a berahka (five candles). Shaḥarit Tuesday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:36–7:38	3 pesukim
Levi	Numbers 7:39-7:41	3 pesukim
Shelishi	Numbers 7:42-7:47	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Tuesday and most communities recite *mizmor shir ḥanukkat habayit*.

5.7 723 Shabbat-Regular-Tuesday (non-leap)

Rosh Hashana I – 1 Tishrei

Kabbalat Shabbat is abbreviated, beginning with השבת מדליקין. The chapter מזמור שיר ליום השבת is omitted. Le'eila le'eila is included in Kaddish beginning with the Kaddish following abbreviated Kabbalat Shabbat. Arvit is chanted in the appropriate tune for Rosh Hashana. Both Veshameru and tik'u bahodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with מושה השלום and המלך הקדוש. These are continued through Yom Kippur. ויכולו

Kiddush is the text for Rosh Hashana, with additions for Shabbat, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. אל אדון is recited in shaḥarit. The Shir Shel Yom is for Shabbat, along with LeDavid. Many communities recite Anim Zemirot (either because it is Rosh Hashana or because it is Shabbat). Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into seven aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:8	4 pesukim
Shelishi	Genesis 21:9–21:12	4 pesukim
Revi'i	Genesis 21:13-21:17	5 pesukim
Ḥamishi	Genesis 21:18-21:21	4 pesukim
Shishi	Genesis 21:22–21:27	6 pesukim
Shevi'i	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana with additions for Shabbat.

Shofar is not blown. Musaf includes the additions for Shabbat. השבת and ישמחו should be chanted in the tune for Shabbat.

Afternoon kiddush includes the verses for both Shabbat and Rosh Hashana.

Minha begins with Ashrei, Uva Letzion, Hatzi Kaddish, and the Torah reading for Ha'azinu.

Kohen	Deuteronomy 32:1-32:3	3 pesukim
Levi	Deuteronomy 32:4-32:6	3 pesukim
Yisrael	Deuteronomy 32:7-32:12	6 pesukim

After the Torah is returned, Ḥatzi Kaddish is said, and the Amida for Rosh Hashana is recited. בדק מדק בדק is omitted.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. The havdala paragraph is inserted in the Amida. LeDavid is recited after Aleinu. Kiddush is YaKeNHaZ—Yayin (hagafen), Kiddush (אשר בחר בנו וכר), Ner (בורא מאורי), Ner (המבדיל בין קודש לקודש). Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. דמאיר is recited in shaḥarit. The Shir Shel Yom is for Sunday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4-22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before *titkabal* in the Kaddish Shalem following the Amida.

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei

The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are עוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Monday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹן דוֹר. The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Following Tzom Gedalia, liturgical additions continue for the 10 Days of Repentence.

Shabbat Shuva Haazinu – 8 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabah. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha.

The Amida includes additions for the 10 Days of Repentence. The Table 13 is said.

Arvit for the conclusion of Shabbat as usual. Vihi no am is said.

Shabbat Bereshit – 29 Tishrei

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 1:1-2:3	34 pesukim
Levi	Genesis 2:4-2:19	16 pesukim
Shelishi	Genesis 2:20-3:21	27 pesukim
Revi'i	Genesis 3:22-4:18	21 pesukim
Ḥamishi	Genesis 4:19-4:22	4 pesukim
Shishi	Genesis 4:23-5:24	28 pesukim
Sheviʻi	Genesis 5:25-6:8	16 pesukim
Maftir	Genesis 6:5-6:8	4 pesukim

Note that different ḥumashim have different aliya breakdowns for this parasha. Make sure to check with leiners that they learned the correct portion. The Haftara for Shabbat Maḥar Ḥodesh is I Samuel 20:18–20:42. Some read the Haftara for Bereishit even when it falls on Maḥar Ḥodesh (Isaiah 42:5–43:10)

The new month of Marḥeshvan (not "Cheshvan") is blessed. See page 8 for the molad. Rosh Ḥodesh is Sunday and Monday.

ראש חודש מרחשון יהיה ביום ראשון וביום שני

Av HaRahamim is omitted. Shabbat Musaf as usual.

Minha for Shabbat. Tzidkatekha is omitted for Erev Rosh Hodesh.

Arvit for Motzaei Shabbat includes ya'ale veyavo.

Rosh Ḥodesh Marḥeshvan, First day (30 Tishrei)

Shaḥarit for Rosh Ḥodesh. Yaʻale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish , the Torah is returned as usual. No *Lamenatzeaḥ*. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh, Shir shel Yom for Rosh Ḥodesh and Sunday.

Minha as usual for weekday, with the addition of Ya'ale Veyavo in the Amidah and the omission of tahanun.

Rosh Hodesh Marheshvan, Second Day (1 Marheshvan)

Davening on Rosh Ḥodesh is the same as the first day of Rosh Ḥodesh, except that the Psalm of the Day is for Rosh Ḥodesh and Monday.

Shabbat Noaḥ – 6 Marḥeshvan

Kabbalat Shabbat and Arvit as usual.

Kohen	Genesis 6:9-6:22	14 pesukim
Levi	Genesis 7:1-7:16	16 pesukim
Shelishi	Genesis 7:17-8:14	22 pesukim
Revi'i	Genesis 8:15-9:7	15 pesukim
Ḥamishi	Genesis 9:8-9:17	10 pesukim
Shishi	Genesis 9:18-10:32	44 pesukim
Shevi'i	Genesis 11:1–11:32	32 pesukim
Maftir	Genesis 11:29-11:32	4 pesukim

The Haftara for Noach is Isaiah 54:1-55:5. Some congregations say a special misheberakh for those fasting BeHaB.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Lekh Lekha – 13 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 12:1–12:13	13 pesukim
Levi	Genesis 12:14-13:4	11 pesukim
Shelishi	Genesis 13:5–13:18	14 pesukim
Revi'i	Genesis 14:1-14:20	20 pesukim
Ḥamishi	Genesis 14:21–15:6	10 pesukim
Shishi	Genesis 15:7-17:6	37 pesukim
Shevi'i	Genesis 17:7-17:27	21 pesukim
Maftir	Genesis 17:24-17:27	4 pesukim

The Haftara for Lech-Lecha is Isaiah 40:27-41:16.

Shabbat Musaf as usual.

Shabbat Minha as usual.

Shabbat Vayera — 20 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 18:1–18:14	14 pesukim
Levi	Genesis 18:15–18:33	19 pesukim
Shelishi	Genesis 19:1–19:20	20 pesukim (this aliya has a shalshelet)
Revi'i	Genesis 19:21–21:4	40 pesukim
Ḥamishi	Genesis 21:5–21:21	17 pesukim
Shishi	Genesis 21:22–21:34	13 pesukim
Shevi'i	Genesis 22:1–22:24	24 pesukim
Maftir	Genesis 22:20-22:24	5 pesukim

The Haftara for Vayera is II Kings 4:1-4:37.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Ḥayyei Sara — 27 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 23:1–23:16	16 pesukim
Levi	Genesis 23:17-24:9	13 pesukim
Shelishi	Genesis 24:10-24:26	17 pesukim
Revi'i	Genesis 24:27-24:52	26 pesukim
Ḥamishi	Genesis 24:53-24:67	15 pesukim
Shishi	Genesis 25:1–25:11	11 pesukim
Shevi'i	Genesis 25:12-25:18	7 pesukim
Maftir	Genesis 25:16-25:18	3 pesukim

The Haftara for Chayei Sara is I Kings 1:1-1:31.

The new month of Kislev is blessed. See page 8 for the molad. Rosh Ḥodesh is Tuesday and Wednesday.

Av HaRaḥamim is omitted. Shabbat Musaf as usual.

Shabbat Minḥa as usual.

5.8 205 Tuesday-Short-Thursday (leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1-29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיד is recited in shaḥarit. The Shir Shel Yom is for Wednesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices. **Tzom Gedalia** - **3 Tishrei**

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohe	n	Exodus 32:11–32:14	4 pesukim
Levi		Exodus 34:1-34:3	3 pesukim
Yisrae	el	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Thursday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דוד The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Shabbat Shuva Vayelech – 5 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1-32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ארקתון is said.

Arvit for the conclusion of Shabbat as usual. Vihi no'am is omitted.

5.9 227 Tuesday-Long-Shabbat (leap)

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1-29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1-2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיד is recited in shaḥarit. The Shir Shel Yom is for Wednesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices. **Tzom Gedalia** - **3 Tishrei**

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Thursday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דור The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Shabbat Shuva Vayelech – 5 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Sheviʻi	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ארקתון is said.

Arvit for the conclusion of Shabbat as usual. Vihi no'am is omitted.

5.10 317 Tuesday-Regular-Shabbat

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Tuesday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1-29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. LeDavid is read after Aleinu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיד is recited in shaḥarit. The Shir Shel Yom is for Wednesday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices. **Tzom Gedalia** - **3 Tishrei**

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Thursday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹן דוֹר. The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Shabbat Shuva Vayelech – 5 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Micah when Vayelech is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from Haazinu. The Amida includes additions for the 10 Days of Repentence. ארקתון is said.

Arvit for the conclusion of Shabbat as usual. Vihi no'am is omitted.

5.11 501 Thursday-Short-Sunday

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Thursday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1-29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday. LeDavid is recited after Aleinu.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. דמאיד is recited in shaḥarit. The Shir Shel Yom is for Friday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20–22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana. Avinu Malkeinu is omitted, Kaddish Shalem, etc.

Kabbalat Shabbat is abbreviated, since there is a festival on Friday. Arvit has additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha. The Amida includes additions for the 10 Days of Repentence. ארקבונו is said.

Arvit for the conclusion of Shabbat as usual. Vihi no am is said.

Tzom Gedalia – 4 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting. Because the 3rd of Tishrei falls on Shabbat, the fast is pushed off to Sunday.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are אוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Sunday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹן דוֹר. The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

5.12 523 Thursday-Long-Tuesday

Rosh Hashana I – 1 Tishrei

Arvit is chanted in the appropriate tune for Rosh Hashana. Le'eila le'eila is included in Kaddish. Tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with עושה השלום and עושה השלום. These are continued through Yom Kippur.

Kiddush is the text for Rosh Hashana, followed by שהחיינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר
is recited in shaḥarit. The Shir Shel Yom is for Thursday, along with LeDavid. Some communities recite Anim Zemirot.
Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into five aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinhas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:12	8 pesukim
Shelishi	Genesis 21:13–21:21	9 pesukim
Revi'i	Genesis 21:22–21:27	6 pesukim
Ḥamishi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Hatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu in kiddush applies to it as well as the holiday. LeDavid is recited after Aleinu.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Friday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4-22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana. Avinu Malkeinu is omitted, Kaddish Shalem, etc.

Kabbalat Shabbat is abbreviated, since there is a festival on Friday. Arvit has additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Sheviʻi	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha. The Amida includes additions for the 10 Days of Repentence. コカアコン is said.

Arvit for the conclusion of Shabbat as usual. *Vihi no am* is said.

Tzom Gedalia – 4 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting. Because the 3rd of Tishrei falls on Shabbat, the fast is pushed off to Sunday.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Sunday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹם בּבּוֹם. The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

5.13 703 Shabbat-Short-Tuesday (leap)

Rosh Hashana I – 1 Tishrei

Kabbalat Shabbat is abbreviated, beginning with השבת מדליקין. The chapter מומור שיר ליום השבת is omitted. Le'eila le'eila is included in Kaddish beginning with the Kaddish following abbreviated Kabbalat Shabbat. Arvit is chanted in the appropriate tune for Rosh Hashana. Both Veshameru and tik'u bahodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with מושה השלום and המלך הקדוש. These are continued through Yom Kippur. ויכולו

Kiddush is the text for Rosh Hashana, with additions for Shabbat, followed by שהחיינו. LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. is recited in shaḥarit. The Shir Shel Yom is for Shabbat, along with LeDavid. Many communities recite Anim Zemirot (either because it is Rosh Hashana or because it is Shabbat). Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into seven aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:8	4 pesukim
Shelishi	Genesis 21:9–21:12	4 pesukim
Revi'i	Genesis 21:13-21:17	5 pesukim
Ḥamishi	Genesis 21:18-21:21	4 pesukim
Shishi	Genesis 21:22–21:27	6 pesukim
Sheviʻi	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana with additions for Shabbat.

Shofar is not blown. Musaf includes the additions for Shabbat. השבת and ישמחו should be chanted in the tune for Shabbat.

Afternoon kiddush includes the verses for both Shabbat and Rosh Hashana.

Minḥa begins with Ashrei, Uva Letzion, Ḥatzi Kaddish, and the Torah reading for Haʻazinu.

Kohen	Deuteronomy 32:1-32:3	3 pesukim
Levi	Deuteronomy 32:4-32:6	3 pesukim
Yisrael	Deuteronomy 32:7-32:12	6 pesukim

After the Torah is returned, Ḥatzi Kaddish is said, and the Amida for Rosh Hashana is recited. בדקתך צדק is omitted.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. The havdala paragraph is inserted in the Amida. LeDavid is recited after Aleinu. Kiddush is YaKeNHaZ—Yayin (hagafen), Kiddush (אשר בתו וכר), Ner (בורא מאורי), Ner (בורא מאורי), Havdala (שהחיינו). Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of shehehiyanu applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיר is recited in shaḥarit. The Shir Shel Yom is for Sunday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1-31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before *titkabal* in the Kaddish Shalem following the Amida.

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei

The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Selihot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are מוכ מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Monday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at אוֹן דוֹר. The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Following Tzom Gedalia, liturgical additions continue for the 10 Days of Repentence.

Shabbat Shuva Haazinu – 8 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabaḥ. LeDavid is recited.

Kohen	Deuteronomy 32:1-32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha.

The Amida includes additions for the 10 Days of Repentence. אול is said.

Arvit for the conclusion of Shabbat as usual. Vihi no 'am is said.

Shabbat Bereshit – 29 Tishrei

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 1:1-2:3	34 pesukim
Levi	Genesis 2:4-2:19	16 pesukim
Shelishi	Genesis 2:20-3:21	27 pesukim
Revi'i	Genesis 3:22-4:18	21 pesukim
Ḥamishi	Genesis 4:19-4:22	4 pesukim
Shishi	Genesis 4:23-5:24	28 pesukim
Sheviʻi	Genesis 5:25–6:8	16 pesukim
Maftir	Genesis 6:5-6:8	4 pesukim

Note that different ḥumashim have different aliya breakdowns for this parasha. Make sure to check with leiners that they learned the correct portion. The Haftara for Shabbat Maḥar Ḥodesh is I Samuel 20:18–20:42. Some read the Haftara for Bereishit even when it falls on Maḥar Ḥodesh (Isaiah 42:5–43:10)

The new month of Marḥeshvan (not "Cheshvan") is blessed. See page 8 for the molad. Rosh Ḥodesh is Sunday and Monday.

ראש חודש מרחשון יהיה ביום ראשון וביום שני

Av HaRaḥamim is omitted. Shabbat Musaf as usual.

Minḥa for Shabbat. *Tzidkatekha* is omitted for Erev Rosh Ḥodesh.

Arvit for Motzaei Shabbat includes ya'ale veyavo.

Rosh Hodesh Marheshvan, First day (30 Tishrei)

Shaḥarit for Rosh Ḥodesh. Yaʻale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish, the Torah is returned as usual. No Lamenatzeaḥ. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh (including עולכפרת פשע), Shir shel Yom for Rosh Ḥodesh and Sunday.

Minha as usual for weekday, with the addition of Ya'ale Veyavo in the Amidah and the omission of tahanun.

Rosh Hodesh Marheshvan, Second Day (1 Marheshvan)

Davening on Rosh Ḥodesh is the same as the first day of Rosh Ḥodesh, except that the Psalm of the Day is for Rosh Ḥodesh and Monday.

Shabbat Noah – 6 Marheshvan

Kabbalat Shabbat and Arvit as usual.

Kohen	Genesis 6:9-6:22	14 pesukim
Levi	Genesis 7:1-7:16	16 pesukim
Shelishi	Genesis 7:17-8:14	22 pesukim
Revi'i	Genesis 8:15-9:7	15 pesukim
Ḥamishi	Genesis 9:8-9:17	10 pesukim
Shishi	Genesis 9:18-10:32	44 pesukim
Shevi'i	Genesis 11:1–11:32	32 pesukim
Maftir	Genesis 11:29-11:32	4 pesukim

The Haftara for Noach is Isaiah 54:1–55:5. Some congregations say a special misheberakh for those fasting BeHaB.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Lekh Lekha – 13 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 12:1–12:13	13 pesukim
Levi	Genesis 12:14-13:4	11 pesukim
Shelishi	Genesis 13:5–13:18	14 pesukim
Revi'i	Genesis 14:1-14:20	20 pesukim
Ḥamishi	Genesis 14:21–15:6	10 pesukim
Shishi	Genesis 15:7-17:6	37 pesukim
Shevi'i	Genesis 17:7-17:27	21 pesukim
Maftir	Genesis 17:24-17:27	4 pesukim

The Haftara for Lech-Lecha is Isaiah 40:27-41:16.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Vayera — 20 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 18:1–18:14	14 pesukim
Levi	Genesis 18:15–18:33	19 pesukim
Shelishi	Genesis 19:1–19:20	20 pesukim (this aliya has a shalshelet)
Revi'i	Genesis 19:21–21:4	40 pesukim
Ḥamishi	Genesis 21:5–21:21	17 pesukim
Shishi	Genesis 21:22–21:34	13 pesukim
Shevi'i	Genesis 22:1–22:24	24 pesukim
Maftir	Genesis 22:20–22:24	5 pesukim

The Haftara for Vayera is II Kings 4:1-4:37.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Ḥayyei Sara — 27 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 23:1–23:16	16 pesukim
Levi	Genesis 23:17-24:9	13 pesukim
Shelishi	Genesis 24:10-24:26	17 pesukim
Revi'i	Genesis 24:27-24:52	26 pesukim
Ḥamishi	Genesis 24:53-24:67	15 pesukim
Shishi	Genesis 25:1–25:11	11 pesukim
Shevi'i	Genesis 25:12-25:18	7 pesukim
Maftir	Genesis 25:16-25:18	3 pesukim

The Haftara for Chayei Sara is I Kings 1:1-1:31.

The new month of Kislev is blessed. See page 8 for the molad. Rosh Ḥodesh is Tuesday.

Av HaRahamim is omitted. Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Rosh Hodesh Kislev — 1 Kislev

Shaḥarit for Rosh Ḥodesh. Ya'ale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish , the Torah is returned as usual. No Lamenatzeaḥ. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh (including עולכפרת פשע), Shir shel Yom for Rosh Ḥodesh and Tuesday.

Minḥa as usual for weekday, with the addition of Ya'ale Veyavo in the Amidah and the omission of taḥanun.

Shabbat Toledot — 5 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 25:19–26:5	21 pesukim
Levi	Genesis 26:6-26:12	7 pesukim
Shelishi	Genesis 26:13–26:22	10 pesukim
Revi'i	Genesis 26:23–26:29	7 pesukim
Ḥamishi	Genesis 26:30-27:27	33 pesukim
Shishi	Genesis 27:28-28:4	23 pesukim
Shevi'i	Genesis 28:5–28:9	5 pesukim
Maftir	Genesis 28:7–28:9	3 pesukim

The Haftara for Toldot is Malachi 1:1-2:7.

Shabbat Musaf as usual.

Shabbat Minha as usual.

Shabbat VaYeitzei — 12 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 28:10-28:22	13 pesukim
Levi	Genesis 29:1–29:17	17 pesukim
Shelishi	Genesis 29:18-30:13	31 pesukim
Revi'i	Genesis 30:14-30:27	14 pesukim
Ḥamishi	Genesis 30:28-31:16	32 pesukim
Shishi	Genesis 31:17-31:42	26 pesukim
Shevi'i	Genesis 31:43-32:3	15 pesukim
Maftir	Genesis 32:1–32:3	3 pesukim

The Haftara for Vayetzei is Hosea 12:13–14:10.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Vayishlah — 19 Kislev

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 32:4-32:13	10 pesukim
Levi	Genesis 32:14-32:30	17 pesukim
Shelishi	Genesis 32:31–33:5	8 pesukim
Revi'i	Genesis 33:6-33:20	15 pesukim
Ḥamishi	Genesis 34:1–35:11	42 pesukim
Shishi	Genesis 35:12-36:19	37 pesukim
Shevi'i	Genesis 36:20-36:43	24 pesukim
Maftir	Genesis 36:40-36:43	4 pesukim

The Haftara for Vayishlach is Obadiah 1:1-1:21.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Erev Ḥanukka — Thursday 24 Kislev Taḥanun is omitted at Minḥa.

Ḥanukka —24 Kislev (Friday night)

The Ḥanukka Menora is lit in the synagogue after sunset prior to 'arvit in the southern part of the synagogue, with all three of its blessings, beginning with the far right light. 'Arvit includes 'al hanisim, which is included in every amida and in birkat hamazon throughout Ḥanukka (if forgotten, do not repeat the amida or bentshing, though it may be inserted in the paragraph elohai netzor in the amida or in the harahaman paragraphs of bentshing).

At home, the Ḥanukka Menora should be lit after sunset (some wait until dusk), beginning with the far right light, following the recitation of the three blessings on the Ḥanukka lighting. It may be lit throughout the night if members of the household are present to see the candles, though it is preferable to light earlier. Each night another flame is added to the left of the flames from the previous night, and the newest candle is lit first.

Ḥanukka candles are lit in shul, without a berahka (one candles). Shaḥarit Friday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:1–7:11	11 pesukim
Levi	Numbers 7:12–7:14	3 pesukim
Shelishi	Numbers 7:15-7:17	3 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Friday and most communities recite *mizmor shir ḥanukkat habayit*.

Minḥa includes 'al hanisim (no taḥanun). Ḥanukka candles (two candles) must be lit before Shabbat candles, and have sufficient fuel to burn until dusk.

Shabbat Ḥanukka Parshat Vayeshev — 26 Kislev

Kabbalat Shabbat and 'arvit as usual, with 'al hanisim.

Shabbat Shaḥarit with 'al hanisim. Full Hallel, Kaddish Shalem . Two Sifrei Torah are taken out of the ark, one for the parsha, one for Ḥanukka Maftir.

Kohen	Genesis 37:1-37:11	11 pesukim
Levi	Genesis 37:12-37:22	11 pesukim
Shelishi	Genesis 37:23-37:36	14 pesukim
Revi'i	Genesis 38:1-38:30	30 pesukim
Ḥamishi	Genesis 39:1-39:6	6 pesukim
Shishi	Genesis 39:7-39:23	17 pesukim
Shevi'i	Genesis 40:1-40:23	23 pesukim
Maftir	Numbers 7:18-7:23	6 pesukim

After the seven aliyot from the parsha are read, both Sifrei Torah are placed on the table and Ḥatzi Kaddish is recited. Maftir is read, followed by the Haftara. The Haftara for the first Shabbat of Ḥanukka is Zechariah 2:14–4:7. The new month of Tevet is blessed. See page 8 for the molad. Rosh Ḥodesh is Wednesday.

ראש חודש מבת יהיה ביום רביעי

Musaf as usual with 'al hanisim. Most recite Psalm 30 (mizmor shir ḥanukkat habayit ledavid) following the Psalm for Shabbat.

Minha as usual with 'al hanisim.

Third Day of Hanukka — 27 Kislev

'Arvit for the conclusion of Shabbat. Havdala and 'al hanisim in the Amidah, Ḥatzi Kaddish, vihi no 'am, etc. The Ḥanukka Menora is lit (three candles), then aleinu and havdala. At home, havdala is recited before the Ḥanukka candles are lit (three candles), which should be done as soon as practicable.

Ḥanukka candles are lit in shul, without a berahka (three candles). Shaḥarit Sunday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:24-7:26	3 pesukim
Levi	Numbers 7:27-7:29	3 pesukim
Shelishi	Numbers 7:30-7:35	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Sunday and most communities recite *mizmor shir ḥanukkat habayit*.

Fourth Day of Hanukka— 28 Kislev

The Ḥanukka Menora is lit before 'arvit with berakhot (four candles), as in previous days. 'Arvit includes 'al hanisim. The Ḥanukka Menora is lit at home (four candles).

Ḥanukka candles are lit in shul, without a berahka (four candles). Shaḥarit Monday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:30-7:32	3 pesukim
Levi	Numbers 7:33-7:35	3 pesukim
Shelishi	Numbers 7:36-7:41	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Monday and most communities recite *mizmor shir ḥanukkat habayit*.

Fifth Day of Ḥanukka— 29 Kislev

The Ḥanukka Menora is lit before 'arvit with berakhot (fifth candles), as in previous days. 'Arvit includes 'al hanisim. The Ḥanukka Menora is lit at home (fifth candles).

Ḥanukka candles are lit in shul, without a berahka (five candles). Shaḥarit Tuesday morning includes 'al hanisim in the Amidah. After the leader recites the communal amidah, full Hallel is recited (no taḥanun). Ḥatzi Kaddish is said, since there is no Musaf today. The Torah is taken out, without 'el 'erekh 'apayim. Three aliyot are read as follows:

Kohen	Numbers 7:36-7:38	3 pesukim
Levi	Numbers 7:39-7:41	3 pesukim
Shelishi	Numbers 7:42-7:47	6 pesukim

The *yehi ratzon* paragraphs are not recited. The Torah is returned as usual, Ḥatzi Kaddish, ashrei, no *lamenatzeaḥ*. Psalm of the Day for Tuesday and most communities recite *mizmor shir ḥanukkat habayit*.

5.14 725 Shabbat-Long-Thursday (leap)

Rosh Hashana I – 1 Tishrei

Kabbalat Shabbat is abbreviated, beginning with השבת מדליקין. The chapter מזמור שיר ליום השבת is omitted. Le'eila le'eila is included in Kaddish beginning with the Kaddish following abbreviated Kabbalat Shabbat. Arvit is chanted in the appropriate tune for Rosh Hashana. Both Veshameru and tik'u baḥodesh shofar are recited before Ḥatzi Kaddish. The Amidah is recited with מושה השלום and המלך הקדוש. These are continued through Yom Kippur. ויכולו and the Berakha Eḥad Me'ein Shalosh is chanted in the Shabbat tune, with מושה השלום.

Kiddush is the text for Rosh Hashana, with additions for Shabbat, followed by שהחינו LeDavid is recited at the end of Arvit.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. אל אדון is recited in shaḥarit. The Shir Shel Yom is for Shabbat, along with LeDavid. Many communities recite Anim Zemirot (either because it is Rosh Hashana or because it is Shabbat). Two Sifrei Torah are taken from the Ark. The Torah reading is the story of Isaac's birth and Ishma'el being expelled from Abraham's household, divided into seven aliyot, from the first Sefer Torah, and the Maftir is from the holiday listing in Pinḥas.

Kohen	Genesis 21:1–21:4	4 pesukim
Levi	Genesis 21:5–21:8	4 pesukim
Shelishi	Genesis 21:9-21:12	4 pesukim
Revi'i	Genesis 21:13–21:17	5 pesukim
Ḥamishi	Genesis 21:18-21:21	4 pesukim
Shishi	Genesis 21:22–21:27	6 pesukim
Shevi'i	Genesis 21:28–21:34	7 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana I is I Samuel 1:1–2:10. The berakha after the haftara uses the text for Rosh Hashana with additions for Shabbat.

Shofar is not blown. Musaf includes the additions for Shabbat. השבת and ישמחו should be chanted in the tune for Shabbat.

Afternoon kiddush includes the verses for both Shabbat and Rosh Hashana.

Minha begins with Ashrei, Uva Letzion, Hatzi Kaddish, and the Torah reading for Ha'azinu.

Kohen	Deuteronomy 32:1-32:3	3 pesukim
Levi	Deuteronomy 32:4-32:6	3 pesukim
Yisrael	Deuteronomy 32:7-32:12	6 pesukim

After the Torah is returned, Ḥatzi Kaddish is said, and the Amida for Rosh Hashana is recited. בדקתך צדק omitted.

Rosh Hashana II – 2 Tishrei

Arvit for Rosh Hashana is recited, beginning with Berekhu. The havdala paragraph is inserted in the Amida. LeDavid is recited after Aleinu. Kiddush is YaKeNHaZ—Yayin (hagafen), Kiddush (אשר בחר בנו וכר), Ner (בורא מאורי), Havdala (שהחיינו לקורש). Since the two days of Rosh Hashana are considered single "long day", the custom is that a new fruit is eaten or a new garment is worn so that the berakha of sheheḥiyanu applies to it as well as the holiday.

Shaḥarit is recited according to the text in the maḥzor, with piyyutim according to local communal custom. המאיד is recited in shaḥarit. The Shir Shel Yom is for Sunday, along with LeDavid. Some communities recite Anim Zemirot. Two Sifrei Torah are taken from the Ark. The Torah reading is the story of the binding of Isaac, which immediately follows the reading from the first day.

Kohen	Genesis 22:1–22:3	3 pesukim
Levi	Genesis 22:4–22:8	5 pesukim
Shelishi	Genesis 22:9–22:14	6 pesukim
Revi'i	Genesis 22:15–22:19	5 pesukim
Ḥamishi	Genesis 22:20-22:24	5 pesukim
Maftir	Numbers 29:1–29:6	6 pesukim

Ḥatzi Kaddish is recited, and the first Sefer Torah is lifted and wrapped. Maftir is read from the second Sefer Torah. The Haftara for Rosh Hashana II is Jeremiah 31:1–31:19. The berakha after the haftara uses the text for Rosh Hashana.

Shofar is blown, with *sheheḥiyanu*. Three sets each of each sequence of blasts are blown. Musaf is recited according to the text in the maḥzor with piyyutim according to local custom. Some communities blow the shofar during the silent Amidah. The shofar is blown during the repetition. Most communities blow a total of 100 blasts of the shofar, which requires additional blasts after the amida. Most do this before *titkabal* in the Kaddish Shalem following the Amida.

Afternoon kiddush for Rosh Hashana.

Minḥa begins with Ashrei and Uva Letzion. Ḥatzi Kaddish and the Amida for Rosh Hashana, Avinu Malkeinu, Kaddish Shalem, etc.

3 Tishrei

The holiday is concluded with Arvit for weekdays. Vihi Noʻam is not recited. Havdala is on wine only, without introductory verses, flame or spices.

Tzom Gedalia – 3 Tishrei

The Third of Tishrei is a minor fast, commemoratting the assassination of Gedalia, the governor of the Babylonian province of Judea. His assassination ended the last Jewish governance that had remained after the destruction of the First Temple. It also is part of the fasting of the Yamim Noraim season, which formerly included days of fasting.

Seliḥot are recited (before shaḥarit, as during the 10 Days of Repentence). Additions to the Amidah for both minor fasts and the 10 Days of Repentence are included. Avinu Malkeinu is read, using the text for the 10 Days of Repentence.

Kohen	Exodus 32:11–32:14	4 pesukim
Levi	Exodus 34:1-34:3	3 pesukim
Yisrael	Exodus 34:4-34:10	7 pesukim

Note the break between first and second aliyot. The first and third aliyot have phrases where the reader pauses and allows the congregation to finish the phrase, then the reader repeats the phrase using Yamim Noraim trope. Those phrases are עוב מחרון אפן to the end of the verse, and the 13 Attributes of Mercy in the third aliya.

Psalm of the day for Monday and Ledavid.

Minḥa is said with the same Torah reading as shaḥarit, except that the third aliya is called as Maftir. The Haftara is Isaiah 55:6–56:8. The concluding berakha ends at און דור The Amidah is recited, with additions for the Ten Days of Repentence and minor fasts. Avinu Malkeinu is recited, with the text for the 10 Days of Repentence.

Following Tzom Gedalia, liturgical additions continue for the 10 Days of Repentence.

Shabbat Shuva Haazinu – 8 Tishrei

Kabbalat Shabbat and Arvit as usual, with the additions to the Amidah for the 10 Days of Repentence, and *hamelekh hakadosh* in the Berakha Achat Me'ein Sheva, concluding with LeDavid.

Shabbat Shaḥarit, with additions for the 10 Days of Repentence in the Amidah. Most communities open the ark and recite שיר המעלות ממעמקים after Yishtabah. LeDavid is recited.

Kohen	Deuteronomy 32:1–32:6	6 pesukim
Levi	Deuteronomy 32:7-32:12	6 pesukim
Shelishi	Deuteronomy 32:13-32:18	6 pesukim
Revi'i	Deuteronomy 32:19-32:28	10 pesukim
Ḥamishi	Deuteronomy 32:29-32:39	11 pesukim
Shishi	Deuteronomy 32:40-32:43	4 pesukim
Shevi'i	Deuteronomy 32:44-32:52	9 pesukim
Maftir	Deuteronomy 32:48-32:52	5 pesukim

Note: the aliya breaks in the song of Ha'azinu are mentioned in the Talmud and must be adhered to.

Customs vary for the Haftara. All communities begin with Hosea 14:2–10. Some add both Joel 2:11–27 and Micah 7:18–20 (note that Joel should be before Micah to avoid going backwards within the 12 Prophets), some add either Joel or Micah but not both, others add only the verses from Joel when Haazinu is read on Shabbat Shuva.

Shabbat Minḥa begins as usual, reading from VeZot HaBerakha.

The Amida includes additions for the 10 Days of Repentence. אול is said.

Arvit for the conclusion of Shabbat as usual. Vihi no am is said.

Shabbat Bereshit – 29 Tishrei

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaharit as usual.

Kohen	Genesis 1:1-2:3	34 pesukim
Levi	Genesis 2:4-2:19	16 pesukim
Shelishi	Genesis 2:20-3:21	27 pesukim
Revi'i	Genesis 3:22-4:18	21 pesukim
Ḥamishi	Genesis 4:19-4:22	4 pesukim
Shishi	Genesis 4:23-5:24	28 pesukim
Shevi'i	Genesis 5:25–6:8	16 pesukim
Maftir	Genesis 6:5-6:8	4 pesukim

Note that different ḥumashim have different aliya breakdowns for this parasha. Make sure to check with leiners that they learned the correct portion. The Haftara for Shabbat Maḥar Ḥodesh is I Samuel 20:18–20:42. Some read the Haftara for Bereishit even when it falls on Maḥar Ḥodesh (Isaiah 42:5–43:10)

The new month of Marḥeshvan (not "Cheshvan") is blessed. See page 8 for the molad. Rosh Ḥodesh is Sunday and Monday.

ראש חודש מרחשון יהיה ביום ראשון וביום שני

Av HaRaḥamim is omitted. Shabbat Musaf as usual.

Minha for Shabbat. *Tzidkatekha* is omitted for Erev Rosh Hodesh.

Arvit for Motzaei Shabbat includes ya'ale veyavo.

Rosh Hodesh Marheshvan, First day (30 Tishrei)

Shaḥarit for Rosh Ḥodesh. Ya'ale veyavo in the shaḥarit Amidah, Hallel, Kaddish Shalem, no El Erekh Apayim.

Kohen	Numbers 28:1–28:3	3 pesukim
Levi	Numbers 28:3–28:5	3 pesukim
Shelishi	Numbers 28:6–28:10	5 pesukim
Revi'i	Numbers 28:11-28:15	5 pesukim

Ḥatzi Kaddish , the Torah is returned as usual. No Lamenatzeaḥ. Remove Tefillin before or after Ḥatzi Kaddish, according to community custom. Musaf for Rosh Ḥodesh (including אולכפרת פשע), Shir shel Yom for Rosh Ḥodesh and Sunday.

Minḥa as usual for weekday, with the addition of Ya'ale Veyavo in the Amidah and the omission of taḥanun.

Rosh Hodesh Marheshvan, Second Day (1 Marheshvan)

Davening on Rosh Ḥodesh is the same as the first day of Rosh Ḥodesh, except that the Psalm of the Day is for Rosh Ḥodesh and Monday.

Shabbat Noaḥ – 6 Marḥeshvan

Kabbalat Shabbat and Arvit as usual.

Kohen	Genesis 6:9-6:22	14 pesukim
Levi	Genesis 7:1-7:16	16 pesukim
Shelishi	Genesis 7:17-8:14	22 pesukim
Revi'i	Genesis 8:15-9:7	15 pesukim
Ḥamishi	Genesis 9:8–9:17	10 pesukim
Shishi	Genesis 9:18–10:32	44 pesukim
Sheviʻi	Genesis 11:1–11:32	32 pesukim
Maftir	Genesis 11:29–11:32	4 pesukim

The Haftara for Noach is Isaiah 54:1–55:5. Some congregations say a special misheberakh for those fasting BeHaB.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Lekh Lekha – 13 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 12:1-12:13	13 pesukim
Levi	Genesis 12:14–13:4	11 pesukim
Shelishi	Genesis 13:5–13:18	14 pesukim
Revi'i	Genesis 14:1–14:20	20 pesukim
Ḥamishi	Genesis 14:21–15:6	10 pesukim
Shishi	Genesis 15:7-17:6	37 pesukim
Shevi'i	Genesis 17:7-17:27	21 pesukim
Maftir	Genesis 17:24-17:27	4 pesukim

The Haftara for Lech-Lecha is Isaiah 40:27-41:16.

Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Shabbat Vayera — 20 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 18:1–18:14	14 pesukim
Levi	Genesis 18:15–18:33	19 pesukim
Shelishi	Genesis 19:1–19:20	20 pesukim (this aliya has a shalshelet)
Revi'i	Genesis 19:21-21:4	40 pesukim
Ḥamishi	Genesis 21:5–21:21	17 pesukim
Shishi	Genesis 21:22–21:34	13 pesukim
Shevi'i	Genesis 22:1-22:24	24 pesukim
Maftir	Genesis 22:20–22:24	5 pesukim

The Haftara for Vayera is II Kings 4:1-4:37.

Shabbat Musaf as usual.

Shabbat Minha as usual.

Shabbat Ḥayyei Sara — 27 Marḥeshvan

Kabbalat Shabbat and Arvit as usual. Pesukei DeZimra and Shaḥarit as usual.

Kohen	Genesis 23:1–23:16	16 pesukim
Levi	Genesis 23:17-24:9	13 pesukim
Shelishi	Genesis 24:10-24:26	17 pesukim
Revi'i	Genesis 24:27-24:52	26 pesukim
Ḥamishi	Genesis 24:53-24:67	15 pesukim
Shishi	Genesis 25:1–25:11	11 pesukim
Shevi'i	Genesis 25:12-25:18	7 pesukim
Maftir	Genesis 25:16-25:18	3 pesukim

The Haftara for Chayei Sara is I Kings 1:1-1:31.

The new month of Kislev is blessed. See page 8 for the molad. Rosh Ḥodesh is Tuesday and Wednesday.

ראש חודש כסלו יהיה ביום שלישי וביום רביעי

Av HaRaḥamim is omitted. Shabbat Musaf as usual.

Shabbat Minḥa as usual.

Chapter 6

Zmanim

Below is a table of zmanim for the entire year. Dawn is the very beginning of the day. Nighttime obligations, such as the shema, must be performed before this time. Misheyakir is the earliest time to wear Tallit and Tefillin. Sunrise is the beginning of the preferred timeframe for reciting shaḥarit, and the earliest time to perform daytime halakhic obligations. Morning shema should be recited before the time labelled "shema", and shaḥarit before the time designated shaḥarit.

If shaḥarit was not recited at the proper time, it may be recited until noon. Noon is also listed because it is 12 hours before halakhic midnight, the time before which nighttime obligations should be performed (but if one failed to, generally they may do so until dawn). Minḥa Gedola is one-half proportional hour after noon, the earliest time for minḥa. MK is Minḥa Ketana, which is the preferred earliest time to recite minḥa. Plag is Pelag haMinḥa, the earliest time to begin Shabbat. It is also the time at which some communities end reciting minḥa and begin reciting arvit. Most communities, however, recite minḥa before sunset, and arvit after it. Sunset is also the latest time to perform daytime halakhic obligations.

Dusk is an earlier zman for nighttime, when it begins to get dark. Opinions vary, but the time below is a good benchmark for the earliest time to recite evening shema, earliest ideal time for arvit, and earliest time for nighttime halakhic obligations. Nightfall is when it the sky is dark, which is when havdala may be recited.

For dates between those listed, estimate given the adjacent dates. Do not rely on these times to the exact minute, since there is slight variation in zmanim from year to year, and rounding combined with estimating between dates can cause slight inaccuracies.

Prop Hr is the number of minutes in I/12 of the daylight. This is useful to compute other times not listed here, such as the latest time to eat hametz on Erev Pesah (2 hours before noon), or earliest Minha (half a proportional hour after noon, as noted above).

Note that the table does not account for Daylight Saving Time, and is in the standard time of the location.

For ease of navigation, sunrise, noon, and sunset times are bolded.

6.1 Zmanim for Chicago

			0									
Date	Dawn	Misheyakir	Sunrise	Shema	Shaharit	Noon	MK	Plag	Sunset	Dusk	Nightfall	Prop Hr
OI-OI	05:48	06:17	07:18	09:36	IO:22	11:54	14:35	15:32	16:29	17:04	17:16	46
01-04	05:48	06:17	07:18	09:37	IO:23	11:55	14:37	15:34	16:32	17:06	17:18	46
OI-07	05:49	06:17	07:18	09:37	10:24	11:56	14:39	15:37	16:35	17:09	17:21	46
OI-IO	05:48	06:17	07:17	09:37	IO:24	11:58	14:41	15:40	16:38	17:12	17:24	47
01-13	05:48	06:17	07:16	09:38	IO:25				16:41	17:15	17:27	i
01-13		06:16	· '			11:59	14:44	15:43 15:46	16:45	17:18		47
	05:47		07:15	09:38	10:25	12:00					17:30	47
01-19	05:46	06:14	07:13	09:37	10:25	12:01	14:49	15:49	16:49	17:22	17:33	48
OI-22	05:44	06:13	07:11	09:37	IO:25	12:02	14:51	15:52	16:52	17:25	17:37	48
OI-25	05:43	06:11	07:09	09:36	IO:25	12:03	14:54	15:55	16:56	17:29	17:40	49
01-28	05:41	06:09	07:07	09:35	10:24	12:03	14:56	15:58	17:00	17:32	17:44	49
01-31	05:38	06:06	07:04	09:34	10:24	12:04	14:59	16:01	17:04	17:36	17:47	50
02-03	05:36	06:04	07:01	09:32	10:23	12:04	15:01	16:04	17:07	17:39	17:51	51
02-06	05:33	06:01	06:57	09:31	IO:22	12:04	15:03	16:07	17:11	17:43	17:54	51
02-09	05:30	05:57	06:54	09:29	IO:2I	12:05	15:06	16:11	17:15	17:47	17:58	52
O2-I2	05:26	05:54	06:50	09:27	10:20	12:05	15:08	16:14	17:19	17:50	18:02	52
02-15	05:23	05:50	06:46	09:25	10:18	12:04	15:10	16:17	17:23	17:54	18:05	53
02-18	05:19	05:46	06:42	09:23	10:17	12:04	15:12	16:19	17:27	17:58	18:09	54
O2-2I	05:15	05:42	06:38	09:21	10:15	12:04	15:14	16:22	17:30	18:01	18:12	54
02-24	05:11	05:38	06:33	09:18	10:13	12:04	15:16	16:25	17:34	18:05	18:16	55
02-27	05:06	05:34	06:28	09:16	10:12	12:03	15:18	16:28	17:38	18:08	18:19	56
03-02	05:01	05:29	06:24	09:13	10:10	12:03	15:20	16:31	17:41	18:12	18:23	56
03-05	04:57	05:24	06:19	09:10	10:08	12:02	15:22	16:33	17:45	18:15	18:26	57
03-08	04:52	05:19	06:14	09:08	10:05	12:01	15:24	16:36	17:48	18:19	18:30	58
03-11	04:47	05:14	06:09	09:05	10:03	12:00	15:25	16:39	17:52	18:22	18:33	59
03-14	04:41	05:09	06:04	09:02	10:01	12:00	15:27	16:41	17:55	18:26	18:37	59
03-17	04:36	05:04	05:59	08:59	09:59	11:59	15:29	16:44	17:59	18:29	18:40	60
03-20	04:31	04:59	05:54	08:56	09:56	11:58	15:30	16:46	18:02	18:32	18:43	61
03-23	04:25	04:53	05:49	08:53	09:54	11:57	15:32	16:49	18:05	18:36	18:47	61
03-26	04:20	04:48	05:43	08:50	09:52	11:56	15:34	16:51	18:09	18:39	18:50	62
03-29	04:14	04:43	05:38	08:47	09:50	11:55	15:35	16:54	18:12	18:43	18:54	63
04-01	04:08	04:37	05:33	08:44	09:47	11:54	15:37	16:56	18:15	18:46	18:57	64
04-04	04:03	04:32	05:28	08:41	09:45	11:53	15:38	16:59	18:19	18:50	19:01	64
04-07	03:57	04:26	05:23	08:38	09:43	11:53	15:40	17:01	18:22	18:53	19:05	65
04-10	03:51	04:21	05:18	08:35	09:41	11:52	15:41	17:03	18:25	18:57	19:08	66
04-13		04:16	05:13	08:32	09:38			17:06	18:29	19:00	19:12	66
04-16	03:45		05:08	08:29		11:51	15:43		18:32		19:12	67
	03:40	04:10		08:29	09:36	11:50	15:45	17:08	18:35	19:04		68
04-19	03:34	04:05	05:04	08:24	09:34	11:50	15:46	17:11	18:39	19:07	19:19	68
04-22	03:28	04:00	04:59		09:32	11:49	15:48	17:13		19:11	19:23	69
04-25	03:23	03:55	04:55	08:22	09:31	11:48	15:50	17:16	18:42	19:15	19:27	
04-28	03:17	03:50	04:51	08:19	09:29	11:48	15:51	17:18	18:45	19:18	19:31	70
05-01	03:12	03:45	04:46	08:17	09:27	11:48	15:53	17:21	18:49	19:22	19:34	70
05-04	03:06	03:41	04:43	08:15	09:26	11:47	15:55	17:23	18:52	19:25	19:38	7I
05-07	03:01	03:36	04:39	08:13	09:24	11:47	15:57	17:26	18:55	19:29	19:42	7I
05-10	02:56	03:32	04:35	08:11	09:23	11:47	15:59	17:28	18:58	19:33	19:46	72
05-13	02:52	03:28	04:32	08:09	09:22	11:47	16:00	17:31	19:01	19:36	19:49	72
05-16	02:47	03:24	04:29	08:08	09:21	11:47	16:02	17:33	19:05	19:40	19:53	73
05-19	02:43	03:20	04:26	08:07	09:20	11:47	16:04	17:36	19:08	19:43	19:56	73
05-22	02:39	03:17	04:24	08:05	09:19	11:47	16:06	17:38	19:10	19:46	20:00	74
05-25	02:35	03:14	04:21	08:04	09:19	11:47	16:07	17:40	19:13	19:49	20:03	74
05-28	02:32	03:12	04:19	08:04	09:18	11:48	16:09	17:42	19:16	19:52	20:06	75
05-31	02:29	03:09	04:18	08:03	09:18	11:48	16:11	17:44	19:18	19:55	20:09	75
06-03	02:26	03:07	04:16	08:02	09:18	11:48	16:12	17:46	19:20	19:57	20:12	75
06-06	02:24	03:06	04:15	08:02	09:18	11:49	16:13	17:48	19:22	20:00	20:14	76
06-09	02:22	03:05	04:15	08:02	09:18	11:49	16:15	17:50	19:24	20:02	20:16	76
06-12	O2:2I	03:04	04:14	08:02	09:18	11:50	16:16	17:51	19:26	20:03	20:18	76
06-15	O2:2I	03:03	04:14	08:02	09:18	11:51	16:17	17:52	19:27	20:05	20:19	76
06-18	02:20	03:03	04:14	08:03	09:19	11:51	16:18	17:53	19:28	20:06	20:20	76
06-21	O2:2I	03:04	04:15	08:03	09:20	11:52	16:19	17:54	19:29	20:07	20:21	76
06-24	02:22	03:05	04:16	08:04	09:20	11:53	16:19	17:54	19:29	20:07	20:22	76
06-27	02:23	03:06	04:17	08:05	09:21	11:53	16:19	17:54	19:30	20:07	20:22	76
	•											

Date	Dawn	Misheyakir	Sunrise	Shema	Shaḥarit	Noon	MK	Plag	Sunset	Dusk	Nightfall	Prop Hr
06-30	02:25	03:07	04:18	08:06	09:22	11:54	16:20	17:54	19:29	20:07	20:21	76
07-03	02:27	03:09	04:19	08:07	09:23	11:54	16:19	17:54	19:29	20:06	20:21	76
07-06	02:30	03:11	04:21	08:08	09:24	11:55	16:19	17:54	19:28	20:05	20:19	76
07-09	02:33	03:14	04:23	08:09	09:25	11:55	16:19	17:53	19:27	20:04	20:18	75
07-12	02:36	03:17	04:25	08:11	09:26	11:56	16:18	17:52	19:26	20:02	20:16	75
07-15	02:40	03:20	04:28	08:12	09:27	11:56	16:17	17:51	19:24	20:00	20:14	75
07-18	02:44	03:23	04:30	08:13	09:28	11:56	16:16	17:49	19:22	19:58	20:12	74
07-21	02:48	03:26	04:33	08:15	09:29	11:56	16:15	17:47	19:20	19:55	20:09	74
07-24	02:52	03:30	04:36	08:16	09:29	11:56	16:13	17:45	19:17	19:52	20:06	73
07-27	02:56	03:33	04:39	08:17	09:30	11:56	16:12	17:43	19:14	19:49	20:02	73
07-30	03:01	03:37	04:42	08:19	09:31	11:56	16:10	17:40	19:11	19:45	19:59	72
08-02	03:05	03:41	04:45	08:20	09:32	11:56	16:08	17:38	19:08	19:42	19:55	72
08-05	03:10	03:45	04:48	08:22	09:33	11:56	16:06	17:35	19:04	19:38	19:51	71
08-08	03:14	03:48	04:51	08:23	09:34	11:55	16:03	17:32	19:00	19:34	19:46	71
08-11	03:19	03:52	04:54	08:24	09:35	11:55	16:01	17:28	18:56	19:29	19:42	70
08-14	03:23	03:56	04:57	08:26	09:35	11:54	15:58	17:25	18:52	19:25	19:37	70
08-17	03:27	04:00	05:00	08:27	09:36	11:54	15:55	17:21	18:48	19:20	19:32	69 68
08-20	03:32	04:04	05:03	08:28	09:36	11:53	15:52	17:18	18:43	19:15	19:27	68
08-23	03:36	04:07	05:06	08:29	09:37	II:52 II:52	15:49 15:46	17:14 17:10	18:38	19:10	19:22	68
08-26	03:40	04:II 04:I5	05:09	08:30	09:37	11:52	15:46	17:10	18:34	19:05	19:17	66
09-01	03:44	04:18	05:12	08:33	09:38	11:50	15:40	17:02	18:24	18:55	19:12	66
09-01	03:52	04:18	05:10	08:34	09:39	11:49	15:36	16:58	18:19	18:50	19:01	65
09-07	03:56	04:25	05:22	08:35	09:39	11:48	15:33	16:53	18:14	18:45	18:56	64
09-10	04:00	04:29	05:25	08:36	09:39	11:47	15:29	16:49	18:09	18:39	18:51	64
09-13	04:03	04:32	05:28	08:37	09:40	11:46	15:26	16:45	18:03	18:34	18:45	63
09-16	04:07	04:36	05:31	08:38	09:40	11:45	15:22	16:40	17:58	18:29	18:40	62
09-19	04:11	04:39	05:34	08:39	09:40	11:44	15:19	16:36	17:53	18:23	18:34	62
09-22	04:14	04:42	05:37	08:40	09:41	11:42	15:15	16:32	17:48	18:18	18:29	61
09-25	04:18	04:46	05:40	08:41	09:41	11:41	15:12	16:27	17:42	18:13	18:24	60
09-28	04:21	04:49	05:44	08:42	09:41	11:40	15:09	16:23	17:37	18:07	18:18	59
IO-OI	04:24	04:52	05:47	08:43	09:42	11:39	15:05	16:19	17:32	18:02	18:13	59
10-04	04:28	04:55	05:50	08:44	09:42	11:38	15:02	16:14	17:27	17:57	18:08	58
10-07	04:31	04:59	05:53	08:45	09:43	11:38	14:58	16:10	17:22	17:52	18:03	57
IO-IO	04:34	05:02	05:57	08:47	09:43	11:37	14:55	16:06	17:17	17:47	17:58	57
10-13	04:38	05:05	06:00	08:48	09:44	11:36	14:52	16:02	17:12	17:42	17:53	56
10-16	04:41	05:08	06:03	08:49	09:45	11:35	14:49	15:58	17:07	17:38	17:49	55
10-19	04:44	05:12	06:07	08:51	09:45	11:35	14:46	15:54	17:03	17:33	17:44	55
IO-22	04:47	05:15	06:10	08:52	09:46	11:34	14:43	15:51	16:58	17:29	17:40	54
10-25	04:51	05:18	06:14	08:54	09:47	11:34	14:40	15:47	16:54	17:25	17:36	53
10-28	04:54	05:21	06:18	08:56	09:48	11:34	14:38	15:44	16:50	17:21	17:32	53
10-31	04:57	05:25	06:21	08:57	09:49	11:33	14:35	15:41	16:46	17:17	17:28	52
II-03 II-06	05:00	05:28	06:25	08:59	09:50	11:33	14:33	15:38	16:42	17:13	17:25	51
II-06 II-09	05:04	05:3I 05:35	06:29	09:01	09:52	II:33 II:34	14:31	15:35	16:38 16:35	17:10	17:22	51 50
II-09 II-12	05:10	05:35	06:32	09:03	09:53	II:34 II:34	14:29	15:32 15:30	16:35	17:07 17:04	17:19	50
II-12 II-15	05:10	05:36	06:40	09:05	09:55	11:34	14:26	15:28	16:32	17:04	17:16	49
11-18	05:16	05:45	06:43	09:09	09:58	II:35	14:25	15:26	16:27	17:00	17:13 17:11	49
II-2I	05:20	05:48	06:47	09:11	09:59	11:36	I4:24	15:24	16:25	16:58	17:09	48
II-24	05:23	05:51	06:50	09:13	10:01	11:37	14:24	15:23	16:23	16:56	17:08	48
II-27	05:26	05:54	06:54	09:16	10:03	11:38	14:23	15:22	16:21	16:55	17:07	47
11-30	05:28	05:57	06:57	09:18	10:05	11:39	14:23	15:21	16:20	16:54	17:06	47
12-03	05:31	06:00	07:00	09:20	10:07	11:40	14:23	15:21	16:19	16:53	17:05	47
12-06	05:34	06:03	07:03	09:22	10:08	11:41	14:23	15:21	16:19	16:53	17:05	46
12-09	05:36	06:05	07:06	09:24	10:10	11:42	14:24	15:21	16:19	16:53	17:05	46
12-12	05:39	06:08	07:08	09:26	10:12	11:44	14:24	15:22	16:19	16:53	17:05	46
12-15	05:41	06:10	07:11	09:28	10:14	11:45	14:25	15:22	16:20	16:54	17:06	46
12-18	05:43	06:12	07:13	09:30	10:15	11:47	14:26	15:23	16:21	16:55	17:07	46
I2-2I	05:44	06:13	07:14	09:31	10:17	11:48	14:28	15:25	16:22	16:56	17:08	46
12-24	05:46	06:15	07:16	09:33	10:18	11:50	14:29	15:26	16:23	16:58	17:10	46
12-27	05:47	06:16	07:17	09:34	10:20	11:51	14:31	15:28	16:25	17:00	17:12	46
12-30	05:48	06:17	07:18	09:35	IO:2I	11:53	14:33	15:30	16:28	17:02	17:14	46

Chapter 7

Calculation of Zmanim

7.1 Mathematical Background

Calculating zmanim is primarily an exercise in trigonometry. Given the rotation of the earth, one needs to know at what time the sun will be a certain number of degrees below the horizon. The equation is as follows (**times**):

$$z = \arcsin\left(\tan D \tan L + \frac{\sin\!A}{\cos D \cos L}\right)$$

Where z is the time before or after sunrise or sunset, D is the sun's declination¹, L is the latitude, and A is the depression angle of the sun, i.e. the angle of the sun below the horizon (a positive number here is for angle below the horizon). This angle must be converted to number of minutes (by multiplying by 4) and either added to or subtracted from 6pm for evening zmanim or 6am for morning zmanim (negative z is a morning zman after 6am or an evening zman before 6pm). This time is then converted from "sundial time" (solar time)² by adding or subtracting minutes to account for the equation of time for the given date. This is the zman expressed in local time, where 12:00 noon is the average solar noon. This can then be converted to standard time by adding or subtracting time to account for the standard time zone in use.

This process is quite tedious to do manually, which is why people usually use tables or computer programs. Computer programs rely on access to a computer, and many of them rely on internet access, and unless preparations are made, cannot show zmanim on Shabbos. Most tables list the zmanim for a particular location for a full year. This makes the zmanim tables either very lengthy, cover a limited number of locations, or both. These tables take a different approach, with tables for useful depression angles, each showing the number of minutes to add/subtract from 6am/pm for a range of latitudes and solar declinations.

¹This is how many degrees north or south of the equator would see the sun directly overhead at solar noon

²Sundials are unable to measure times after sunset or before sunrise, but the time system here is the same as that measured by a sundial, where 6am is when the sun is due east, noon when it is due north or south and at its highest point in the sky, and 6pm when it is due west. This also explains how an angle can be converted to a number of minutes. From the perspective of an observer on earth, the sun does a 360° circle clockwise in the northern hemisphere and counterclockwise in the southern hemisphere (that's where the term "clockwise" comes from), which works out to moving 15° per hour. This rotation is what a sundial measures.

³Which, as will be explained in the list of depression angles, is close but not exactly the same time as sunrise or sunset

7.2 Instructions

Instructions for use of the zman calculation tables are as follows:

- I. Look up the desired date in the date table and note the minutes figure for the equation of time and the solar declination. These can be also be more accurately determined from an almanac (note that the sign of the equation of time is arbitrary and it may be negative when this chart has positive, or the reverse. An almanac's value will be more accurate, but care must be taken to use the correct sign for the equation of time)
- 2. Determine the latitude of the location for which zmanim are being calculated
- 3. Look up the o° offset and minutes-per-degree figure for the given declination and latitude. For increased precision, interpolate both values for latitude, and declination if using a value from an almanac.
- 4. Determine the sign of the o° offset. For zmanim in summer (equinox to equinox), the sign is positive. In the winter it is negative.
- 5. Determine the number of degrees to use for the desired zman. Explanations of the various times, and angle adjustments for more accurate calculations for large depression angles, are in a table below. If using the multiplication table, the angle adjustment is already factored in.
- 6. Multiply the number of degrees (from the adjustment table if desired) by the minutes-per-degree value. This number of minutes is always positive. This task can be simplified for depression angles listed by using the multiplication table, which incorporates the depression angle adjustments. Add this value to the o° offset (using a negative o° offset in winter, as noted above)
- 7. Use the minute correction table to adjust the result. As shown on the table, no adjustment is needed for results of 53 minutes or less, and only above 90 minutes is the adjustment more than 2 minutes. Note that the sign of the minutes to add should match the input, so a negative number of minutes would become a slightly larger number of negative minutes after adjustment.
- 8. For zmanim in the morning (dawn, misheyakir) the minutes is a time earlier than 6am (or later, if negative). For zmanim in the evening, the minutes is number of minutes before 6pm (or before, if negative). This is the time of the zman in solar time
- 9. If you are calculating a zman that is not directly based on a depression angle (such as 20 minutes before sunset for candle lighting, or 7 minutes after 7°5' for havdala, or 3 proportional hours after a particular dawn zman for latest morning shema according to the Magen Avraham), calculate it now. For zmanim dependent on proportional hours, use the fact that chatzos is 12 noon in solar time⁴
- 10. Add or subtract the number of minutes from the equation of time table for the given date
- II. Add or subtract time to account for standard time (including daylight saving time). This is a constant number of minutes for a given location (though you may need to add an hour for DST). This can be calculated with the formula mins = 4*(UTCoffset*15) Latitude). For convenience, a table of timezones is below.

I suggest highlighting the line(s) for latitudes you often calculate zmanim for. The arithmetic of multiplying degrees times degrees per minute can be made much simpler by using the fact that a second is $\frac{1}{60}$ of a minute, and an arcminute is $\frac{1}{60}$ of a degree.

The zmanim calculated here do not have the precision of a computer program. Declination values vary from year to year, as does the equation of time (which is why both figures are rounded in the tables here). The o° offset figures and equation of time are only given to the minute. If these numbers are obtained from an almanac more precisely, the result will in turn be more precise. The precision of the overall zman, though, will be limited to whatever input (latitude, longitude, declination, equation of time) is least precise.

⁴At least, in mainstream opinions. There are opinions that believe proportional hours are indexed to dawn and sunset, or dawn and dusk (using a definition that isn't "symmetric" with dawn), in which case chatzos is not solar noon. These definitions are difficult to square with the definition of chatzos assumed in halakhic texts.

7.3 Observations

When looking at the table, it should be noted that the o° offsets vary throughout the year much more than the minutes-per-degree number does. This is why approximating a zman with a fixed number of minutes before sunrise or after sunset works reasonably well. To calculate that number of minutes, subtract the depression angle for sunrise or sunset (50') from the desired depression angle, and multiply the result by either the largest or smallest minutes-per-degree figure (generally, whichever results in the most stringency).

The same process can also be used to calculate minutes from sunrise or sunset for a specific date, using published sunrise or sunset times from a newspaper. While this requires manually multiplying the degrees times the minutes-per-degree instead of using the multiplication table, it skips the step of determining the o° offset, using the equation of time, or correcting for time zone.

7.4 Equation of Time and Declination Table

These are the value of the equation of time and solar declination for dates throughout the year. These values vary from year to year according to the gregorian leap year cycle (and declination can change noticeably from morning to night around the equinoxes, or from one time zone to another, if they are distant). If to-the-minute accuracy is desired, these values can be determined from an almanac.

Date	Eqn of Time	Declination
Jan-01	3	-23°
Jan-04	4	-23°
Jan-07	6	-22°
Jan-10	7	-22°
Jan-13	8	-22°
Jan-16	9	-21°
Jan-19	IO	-21°
Jan-22	П	-20°
Jan-25	12	-19°
Jan-28	12	-19°
Jan-31	13	-18°
Feb-03	13	-17°
Feb-o6	14	-16°
Feb-09	14	-15°
Feb-12	14	-14°
Feb-15	14	-13°
Feb-18	14	-12°
Feb-21	14	-II°
Feb-24	14	-IO°
Feb-27	13	-9°
Mar-02	13	-8°
Mar-05	12	-7°
Mar-o8	II	-6°
Mar-11	II	-5°
Mar-14	IO	-3°
Mar-17	9	-2°
Mar-20	8	-I°
Mar-23	7	o°
Mar-26	6	2°
Mar-29	5	3°
Apr-01	4	4°
Apr-04	3	5°
Apr-07	3	6°
Apr-10	2	7°
Apr-13	I	9°
Apr-16	0	IO°
Apr-19	-I	II°
Apr-22	-I	12°
Apr-25	-2	13°
Apr-28	-3	I4°
		·

Date	Eqn of Time	Declination
Мау-оі	-3	15°
May-04	-3	16°
May-07	-4	17°
Мау-10	-4	17°
Мау-13	-4	18°
May-16	-4	19°
May-19	-4	20°
May-22	-4	20°
May-25	-3	21°
May-28	-3	21°
May-31	-3	22°
Jun-03	-2	22°
Jun-o6	-2	23°
Jun-09	-I	23°
Jun-12	-I	23°
Jun-15	0	23°
Jun-18	I	23°
Jun-21	I	23°
Jun-24	2	23°
Jun-27	3	23°
Jun-30	3	23°
Jul-03	4	23°
Jul-06	4	23°
Jul-09	5	22°
Jul-12	5	22°
Jul-15	6	22°
Jul-18	6	21°
Jul-21	6	20°
Jul-24	7	20°
Jul-27	7	19°
Jul-30	7	18°
Aug-02	6	18°
Aug-05	6	17°
Aug-08	6	16°
Aug-11	6	15°
Aug-14	5	I4°
Aug-17	4	13°
Aug-20	4	12°
Aug-23	3	II°
Aug-26	2	10°
Aug-29	I	9°

Date	Eqn of Time	Declination
Ѕер-оі	0	8°
Sep-04	-I	7°
Sep-07	-2	5°
Sep-10	-3	4°
Sep-13	-4	3°
Sep-16	-5	2°
Sep-19	-6	I°
Sep-22	-7	-I°
Sep-25	-8	-2°
Sep-28	-9	-3°
Oct-01	-IO	-4°
Oct-04	-II	-5°
Oct-07	-I2	-6°
Oct-10	-13	-8°
Oct-13	-14	-9°
Oct-16	-15	-IO°
Oct-19	-15	-II°
Oct-22	-16	-12°
Oct-25	-16	-13°
Oct-28	-16	-I4°
Oct-31	-16	-15°
Nov-03	-16	-16°
Nov-o6	-16	-17°
Nov-09	-16	-18°
Nov-12	-16	-18°
Nov-15	-15	-19°
Nov-18	-15	-20°
Nov-21	-14	-20°
Nov-24	-13	-21°
Nov-27	-I2	-21°
Nov-30	-II	-22°
Dec-03	-IO	-22°
Dec-o6	-9	-23°
Dec-09	-8	-23°
Dec-12	-6	-23°
Dec-15	-5	-23°
Dec-18	-4	-23°
Dec-21	-2	-23°
Dec-24	-I	-23°
Dec-27	I	-23°
Dec-30	2	-23°

7.5 o° Offset & Mins per ° Table

	o°	I°	2°	3°	4°	5°	6°	7°	8°	9°	10°	II°	12°	I3°	I4°	15°	
o°	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	o°
	4:00	4:00	4:00	4:00	4:01	4:01	4:01	4:02	4:02	4:03	4:04	4:04	4:05	4:06	4:07	4:08	
ı°	00:00	00:04	00:08	00:13	00:17	00:21	00:25	00:29	00:34	00:38	00:42	00:47	00:51	00:55	00:60	01:04	ı°
	4:00	4:00	4:00	4:00	4:01	4:01	4:01	4:02	4:02	4:03	4:04	4:05	4:05	4:06	4:07	4:09	1
2°	00:00	00:08	00:17	00:25	00:34	00:42	00:50	00:59	01:07	01:16	OI:25	01:33	01:42	01:51	01:60	02:09	2°
	4:00	4:00	4:00	4:00	4:01	4:01	4:01	4:02	4:03	4:03	4:04	4:05	4:06	4:06	4:07	4:09	1 ~
3°	00:00	00:13	00:25	00:38	00:50	01:03	01:16	01:28	01:41	01:54	02:07	02:20	02:33	02:46	02:60	03:13	3°
,	4:00	4:00	4:00	4:01	4:01	4:01	4:02	4:02	4:03	4:03	4:04	4:05	4:06	4:07	4:08	4:09	,
4°	00:00	00:17	00:34	00:50	01:07	01:24	01:41	01:58	02:15	02:32	02:50	03:07	03:24	03:42	03:60	04:18	4°
4	4:01	4:01	4:01	4:01	4:01	4:02	4:02	4:02	4:03	4:04	4:04	4:05	4:06	4:07	4:08	4:09	4
5°	00:00	00:21	00:42	01:03	01:24	01:45	02:06	02:28	02:49	03:11	03:32	03:54	04:16	04:38	04:60	05:22	5°
,	4:01	4:01	4:01	4:01	4:02	4:02	4:02	4:03	4:03	4:04	4:05	4:05	4:06	4:07	4:08	4:09	'
6°	00:00	00:25	00:50	01:16	01:41	02:06	02:32	02:57	03:23	03:49	04:15	04:41	05:07	05:34	06:00	06:27	6°
6	4:01	4:01	4:01	4:02	4:02	4:02	4:03	4:03	4:04	4:04	4:05	4:06	4:07	4:08	4:09	4:10	
7°	00:00	00:29	00:59	01:28	01:58	02:28	02:57	03:27	03:57	04:27	04:58	05:28	05:59	06:30	07:01	07:32	7°
/	4:02	4:02	4:02	4:02	4:02	4:03	4:03	4:04	4:04	4:05	4:06	4:06	4:07	4:08	4:09	4:10	
8°	00:00	00:34	01:07	01:41	02:15	02:49	03:23	03:57	04:32	05:06	05:41	06:16	06:51	07:26	08:02	08:38	8°
0	4:02	4:02	4:03	4:03	4:03	4:03	4:04	4:04	4:05	4:05	4:06	4:07	4:08	4:09	4:10	4:11	8
_0	00:00	00:38	01:16	01:54	02:32	03:11	03:49	04:27	05:06	05:45	06:24	07:03	07:43	08:23	09:03	09:44	
9°	4:03	4:03	4:03	4:03	4:04	4:04	4:04	4:05	4:05	4:06	4:07	4:08	4:08	4:09	4:10	4:12	9°
	00:00	00:42	OI:25	02:07	02:50	03:32	04:15	04:58	05:41	06:24	07:08	07:51	08:35	09:20	10:05	10:50	
10°	4:04	4:04	4:04	4:04	4:04	4:05	4:05	4:06	4:06	4:07	4:07	4:08	4:09	4:10	4:11	4:12	IO°
	00:00	00:47	OI:33	02:20	03:07	03:54	04:41	05:28	06:16	07:03	07:51	08:40	09:28	10:17	п:06	11:56	
II°	4:04	4:05	4:05	4:05	4:05	4:05	4:06	4:06	4:07	4:08	4:08	4:09	4:10	4:11	4:12	4:13	II°
	00:00	00:51	OI:42	02:33	03:24	04:16	05:07	05:59	06:51	07:43	08:35	09:28	IO:2I	11:15	12:09	13:03	
12°	4:05	4:05	4:06	4:06	4:06	4:06	4:07	4:07	4:08	4:08	4:09	4:10	4:11	4:12	4:13	4:14	I2°
	00:00	00:55	01:51	02:46	03:42	04:38	05:34	06:30	07:26	08:23	09:20	10:17	11:15	12:13	13:12	14:11	
13°	4:06	4:06	4:06	4:07	4:07	4:07	4:08	4:08	4:09	4:09	4:10	4:11	4:12	4:13	4:14	4:15	13°
	00:00	00:60	01:60	02:60	03:60	04:60	06:00	07:01	08:02	09:03	10:05	и:06	12:09	13:12	14:15	15:19	
I4°	4:07	4:07	4:07	4:08	4:08	4:08	4:09	4:09	4:10	4:10	4:11	4:12	4:13	4:14	4:15	4:16	I4°
_	00:00	01:04	02:09	03:13	04:18	05:22	06:27	07:32	08:38	09:44	10:50	11:56	13:03	14:11	15:19	16:27	.
15°	4:08	4:09	4:09	4:09	4:09	4:09	4:10	4:10	4:II	4:12	4:12	4:13	4:14	4:15	4:16	4:17	15°
	00:00	01:09	02:18	03:27	04:36	05:45	06:54	08:04	09:14	10:25	11:35	12:46	13:58	15:10	16:23	17:37	h
16°	4:10	4:10	4:10	4:10	4:10	4:11	4:11	4:12	4:12	4:13	4:14	4:14	4:15	4:16	4:17	4:18	16°
	00:00	01:13	02:27	03:40	04:54	06:08	07:22	08:36	09:51	11:06	12:21	13:37	I4:54	16:11	17:28	18:46	† .
17°	4:II	4:II	4:II	4:II	4:12	4:12	4:12	4:13	4:13	4:14	4:15	4:16	4:17	4:18	4:19	4:20	I7°
	00:00	01:18	02:36	03:54	05:12	06:31	07:50	09:09	10:28	11:48	13:08	14:28	15:50	17:12	18:34	19:57	1
18°	4:12	4:12	4:13	4:13	4:13	4:13	4:14	4:14	4:15	4:15	4:16	4:17	4:18	4:19	4:20	4:2I	18°
	00:00	OI:23	02:45	04:08	05:31	06:54	08:18	09:41	II:05	12:30	13:55	15:20	16:46	18:13	19:41	21:09	1
19°	4:14	4:14	4:14	4:14	4:14	4:15	4:15	4:16	4:16	4:17	4:18	4:19	4:19	4:21	4:22	4:23	19°
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20°	4:15	4:15	4:16	4:16	4:16	4:16	4:17	4:17	4:18	4:19	4:19	4:20	4:2I	4:22	4:23	4:24	20°
	00:00	OI:32	03:04	04:37	06:09	07:42	09:15	10:48	12:22	13:56	15:31	17:06	18:42	20:19	21:56	23:34	H
21°	4:17	4:17	4:17	4:17	4:18	4:18	4:18	4:19	4:20	4:20	4:2I	4:22	4:23	4:24	4:25	4:26	2I°
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22°	4:19	4:19	4:19	04:5I 4:19	4:19	4:20	4:20	4:2I	4:2I	14:40 4:22	4:23	4:24	19:41 4:25	4:26	4:27	24:49 4:28	22°
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ı°	01:09	01:13	01:18	OI:23	OI:27	OI:32	OI:37	OI:42	OI:47	OI:52	01:57	02:02	02:08	02:13	02:19	ı°
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3°	4:10	4:11	4:13	4:14	4:16	4:17	4:19	4:21	4:23	4:25	4:27	4:30	4:32	4:35	4:38	3°
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	08:04	08:36	09:09	09:41	10:15	10:48	II:22	11:57	12:32	13:07	13:43	14:20	14:58	15:36	16:15	
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8°	09:14	09:51	10:28	11:05	11:43	12:22	13:01	13:40	14:20	15:01	15:43	16:25	17:08	17:51	18:36	8°
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I4°	16:23	17:28	18:34	19:41	20:48	21:56	23:05	24:15	25:26	26:39	27:52	29:07	30:23	31:40	32:59	I4°
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15°	17:37	18:46	19:57	21:09	22:21	23:34	24:49	26:04	27:20	28:38	29:57	31:17	32:39	34:02	35:27	ıς°
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18°	2I:2I	22:46	24:12	25:38	27:06	28:35	30:05	31:37	33:09	34:43	36:19	37:57	39:36	41:17	42:60	18°
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19°	22:38	24:08	25:38	27:10	28:43	30:18	31:53	33:30	35:08	36:48	38:29	40:13	41:58	43:45	45:34	19°
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22°	26:33	28:19	30:05	31:53	33:42	35:33	37:25	39:18	41:14	43:II	45:10	47:II	49:14	51:20	53:28	22°
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23°	27:54	29:45	31:37	33:30	35:24	37:21	39:18	41:18	43:19	45:22	47:27	49:34	51:44	53:55	56:10	23°
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	16°	I7°	18°	19°	20°	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	

	31°	32°	33°	34°	35°	36°	37°	38°	39°	40°	4I°	42°	43°	44°	45°	
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ı°	02:24	02:30	02:36	02:42	02:48	02:54	03:01	03:08	03:14	03:21	03:29	03:36	03:44	03:52	04:00	
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4°	09:38	10:01	10:24	10:49	11:13	11:39	12:05	12:31	12:59	13:27	13:56	14:26	14:57	15:29	16:02	4°
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s°	12:03	12:32	13:01	13:31	14:02	14:34	15:07	15:40	16:14	16:49	17:26	18:03	18:42	19:22	20:03	5°
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10°	24:17	25:15	26:15	27:15	28:18	29:22	30:27	31:34	32:43	33:55	35:08	36:23	37:41	39:01	40:25	IO°
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13°	31:48	33:04	34:22	35:41	37:03	38:27	39:52	41:20	42:5I	44:24	45:60	47:38	49:20	51:06	52:55	13°
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I4°	34:20	35:42	37:06	38:33	40:01	41:31	43:04	44:39	46:16	47:57	49:40	51:27	53:17	55:11	57:09	I4°
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17°	42:06	43:47	45:30	47:16	49:04	50:54	52:48	54:45	56:44	58:48	60:55	63:05	65:20	67:40	70:04	17°
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19°	47:25	49:19	51:15	53:14	55:15	57:20	59:28	61:39	63:54	66:13	68:36	71:03	73:35	76:12	78:55	19°
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20°	50:07	52:07	54:10	56:16	58:25	60:36	62:52	65:10	67:33	69:60	72:31	75:06	77:47	80:33	83:25	20°
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	31°	32°	33°	34°	35°	36°	37°	38°	39°	40°	4I°	42°	43°	44°	45°	

		46°	47°	48°	49°	50°	51°	52°	53°	54°	55°	56°	57°	58°	59°	60°	
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	58:06	60:35	63:13	66:02	69:04	72:2I	75:53	79:43	83:55	88:30	00	
8°	8:20	8:36	8:54	9:13	9:33	9:56	10:20	10:47	11:16	II:49	8°	
	65:29	68:16	71:14	74:25	77:51	81:32	85:31	89:51	94:34	99:44		
9°	8:21	8:38	8:55	9:14	9:35	9:57	10:22	10:49	11:18	11:50	9°	
	72:54	76:00	79:19	82:51	86:40	90:46	95:12	100:01	105:16	III:02		
10°	8:23	8:39	8:57	9:16	9:37	9:59	10:24	10:51	II:20	11:53	10°	
	80:22	83:47	87:26	91:20	95:32	100:03	104:57	110:16	116:03	122:24		
II°	8:24	8:41	8:59	9:18	9:39	10:01	10:26	10:53	II:22	11:55	II°	
	87:53	91:37	95:36	99:53	104:28	109:25	114:46	120:34	126:54	133:50	12°	
12°	8:26	8:43	9:00	9:20	9:41	10:03	10:28	10:55	II:25	II:57		
	95:27	99:31	103:51	108:29	113:28	118:50	124:39	130:58	137:50	145:22	I3°	
13°	8:28	8:45	9:03	9:22	9:43	10:06	10:30	10:58	II:27	12:00		
	103:05	107:28	II2:09	117:09	122:32	128:21	134:37	141:26	148:52	156:60		
I4°	8:30	8:47	9:05	9:24		10:08	10:33	II:00	II:30	130.00	I4°	
	-				9:45			151:60	-	168:43	15°	
15°	110:47	115:30	120:31	125:54	131:42	137:56 10:11	144:40		159:59	12:06		
-	8:33	8:49	9:07	9:27	9:48		10:36	II:03	11:33		 	
16°	118:33	123:36	128:59	134:44	140:56	147:36	154:49	162:39	171:12	180:33	16°	
	8:35	8:52	9:10	9:30	9:51	10:14	10:39	11:06	II:37	12:10		
17°	126:24	131:47	137:31	143:40	150:16	157:23	165:04	173:26	182:32	192:31	I7°	
	8:38	8:55	9:13	9:32	9:54	10:17	10:42	II:IO	II:40	12:14		
18°	134:20	140:03	146:09	152:41	159:42	167:15	175:26	184:19	193:59	204:36	18°	
	8:41	8:58	9:16	9:36	9:57	10:20	10:46	II:I4	II:44	12:18	 	
19°	142:22	148:25	154:53	161:48	169:14	177:15	185:55	195:19	205:35	216:49	19°	
	8:44	9:01	9:19	9:39	10:01	10:24	10:50	11:18	11:48	12:22		
20°	150:29	156:53	163:43	171:02	178:53	187:21	196:31	206:28	217:18	229:11	20°	
	8:47	9:04	9:23	9:43	10:04	10:28	10:54	II:22	11:53	12:27		
21°	158:43	165:27	172:40	180:23	188:40	197:36	207:15	217:45	229:11	241:43	2.I°	
	8:50	9:08	9:26	9:46	10:08	10:32	10:58	11:26	11:57	12:32		
	167:03	174:09	181:44	189:51	198:34	207:58	218:09	229:11	241:13	254:24	22°	
	8:54	9:11	9:30	9:50	IO:12	10:36	II:O2	11:31	12:02	12:37	-	
23°	175:30	182:58	190:56	199:28	208:37	218:30	229:11	240:47	253:26	267:17	23°	
,	8:58	9:15	9:34	9:55	10:17	10:41	11:07	11:36	12:08	12:42	-,	
	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°		

7.6 Depression Angles & Adjustments

The following is a table of depression angles used in halakha. An explanation of each degree number is as follows (**dvaryom**). Note that very early "Gra" times are not listed, as they are not in wide use and since the stars are never visible that early. For smaller depression angles, using the angle times the minutes per degree figure in the following table is adequate. As angles get larger (and the minutes per degree is higher) this figure begins to become inaccurate. For increased accuracy at higher depression angles, multiply the minutes-per-degree figure by the "mult by" figure below. Arithmetically it will often be easier to use the original value and then subtracting the result of the minutes-per-degree figure times the difference between original angle and the modified angle.

Angle	Mult by:	Explanation
o°50'	0°50'	Sunrise/sunset. It might be surprising that sunrise and sunset are not o°! Since the sun is
		not a single point and the top of the sun is visible even when its center is below the horizon,
		and because of atmospheric refraction making the sun visible even when its true position is
		below the horizon, an angle of 50' is the conventional definition of sunrise and sunset.
6°	5°59'	A time sometimes used for nightfall for purposes of ending minor fasts. It is also civil twi-
		light, the time when outdoor activities can begin in the morning, or conclude in the evening,
		without need for artificial light
6°27'	6°26'	An earlier time for nightfall often used to conclude minor fasts.
7°5'	7°4'	A nightfall time used by the United Synagogue in Britain, and by some other European
		communities (generally adding 7 minutes for havdala). It is sometimes used as the conclu-
		sion for minor fasts.
8°30'	8°28'	The most widely used time for nightfall to end Shabbat in America and some communities
		elsewhere. Sometimes used as a later misheyakir zman.
10°12'	10°9'	A widely-used time for misheyakir
II°	10°56'	A widely-used time for misheyakir
11°30'	II°25'	A widely-used time for misheyakir
I2°	11°55'	This time is not used halakhically (to the author's knowledge), but it is equal to nautical
		twilight, and is included for reference and for checking the computed values vs published
		twilight values
I4°	13°52'	A time some use for dawn (Montreal Luach)
16°6'	15°53'	A widely used time for dawn. It also is sometimes used for nightfall. It corresponds to the
		depression angle 72 minutes after sunset at the equinoxes at approximately the latitude of
		Israel and Babylonia
18°	17°42'	A time some use for dawn (MTJ Luach). It matches astronomical twilight. Times later
		than this are difficult to understand, as astronomers report that even dim stars are visible at
		this point.
19°40'	19°22'	An earlier opinion for dawn and a later opinion for nightfall, corresponding to the depres-
		sion angle 72 minutes after sunset at the equinoxes at approximately the latitude of Israel
		and Babylonia. Some keep Shabbat until this time, which is called the "ochtal" in Yiddish
		(since 90 minutes is an eighth of 12 hours). In practice, because of the impracticability of
		such a late time in the summer, most who keep this zman simply use a fixed 90 minutes
		after sunset.
26°	25°7'	A late nightfall time, equivalent to the depression angle 120 minutes after sunset at the
		equinoxes in Israel and Babylonia. This is the time called the "zekstal" (one sixth of 12
		hours). In practice, because of the impracticability of such a late time in the summer, most
		who keep this zman simply use a fixed 120 minutes after sunset.

7.7 Multiplication Table

This table allows faster calculation of minutes from a given depression angle and minutes per degree figure. Useful depression angles are on the top row. Each row is simply the number in the first column times the angle (adjusted for more precision to account for sinx not being a perfect approximation of x). To use this table, look up your desired depression angle times the number of minutes per degree. Then look up your desired depression angle times the number of seconds per degree. Then add the results. This table is in base 60. Depending on the inputs, the result may be in hours and minutes, minutes and seconds, or seconds and sixtieths of a second.

410 3326 2457 2570 2926 3373 4038 4344 4542 4739 5742 10049 11727 14028 14439 4410 337 3457 34506 3037 3644 4458 4728 49218 3448 3424 3434 4734 5436 3424 5436 3424 343		0°50'	6°	6°30'	7°5'	8°30'	10°12'	II°	п°30,	I2°	I4°	16°6'	18°	19°45'	26°
1430 337 2657 2806 3037 3642 4358 4372 4930 4317 100004 10831 11643 11254 11464 1353 26577 2991 3148 3991 4731 5100 5318 5335 10944 11469 11235 13931 1335	4:00	3:20	23:57	25:57	28:16	33:53	40:35	43:44	45:42	47:39	55:27	1:03:33	1:10:49	1:17:27	1:40:28
4490 3545 26577 2911 3148 38.07 4419 44912 51510 5316 100222 11130 11130 11230 11230 12301 1	4:10	3:28	24:57	27:02	29:26	35:17	42:17	45:33	47:36	49:38	57:45	1:06:12	1:13:46	I:20:40	I:44:39
449 439 227,77 3016 3248 3911 4721 5100 5348 5535 10044 114-09 12238 13021 15731 14704 1450 4056 4400 2357 1226 3519 4221 50544 5440 5707 5934 10028 11927 1226 13129 14020 20036 2350 410 20037 3238 36130 4315 5245 5245 5620 5920 11033 11137 122106 13129 14902 200946 23530 4277 3356 3436 5744 4310 5407 58818 10055 10033 11136 12244 13426 14316 23337 3310 4333 3613 4613 5544 10005 10033 11614 12723 13723 14629 23809 23	4:20	3:37	25:57	28:06	30:37	36:42	43:58	47:22	49:30	51:37	1:00:04	1:08:51	1:16:43	1:23:54	1:48:50
490 490 2857 3121 34:09 49:06 49:02 53:30 53:31 57:35 107:00 116:48 125:35 133:33 20:124 59:00 418 39:77 33:31 35:30 43:45 52:25 56:29 59:01 101:31 111:17 112:106 13:139 14:40:02 2:09:46 53:10 418 30:37 33:31 35:30 43:45 52:25 56:29 59:01 101:31 111:17 112:106 13:139 14:40:02 2:09:46 53:00 43:51 33:56 33:40 33:51 44:51 54:25 56:29 59:01 101:31 111:17 112:106 13:139 14:40:02 2:09:46 53:00 43:51 33:56 33:40 33:51 44:51 34:51 53:48 10:00:55 10:35:21 116:31 117:21 13:72:31 13:73:31 13:73	4:30	3:45	26:57	29:11	31:48	38:07	45:39	49:12	51:24	53:36	I:02:22	1:11:30	1:19:40	1:27:08	1:53:02
\$\frac{1}{5}00 \$4:10 \$29:77 \$3:26 \$3:19 \$4:21 \$50:44 \$4:40 \$7:707 \$9:94 \$1:09:18 \$1:19:27 \$1:88;31 \$1:96:64 \$2:09:34 \$1:10 \$4:10 \$4:10 \$4:07 \$8:18 \$1:00:35 \$1:03:32 \$1:13:04 \$1:14:16 \$1:40:02 \$2:09:35 \$1:30:34	4:40	3:53	27:57	30:16	32:58	39:31	47:2I	51:01	53:18	55:35	I:04:4I	1:14:09	1:22:38	1:30:21	1:57:13
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530 427 3356 3436 3744 4510 54407 5818 10035 10035 10036 12713 12713 12713 12426 12316 22337 12444 13346 123713 12421 12421 12431 12713 12713 12713 12422 12809 12904 12913 12034 1203	5:00	4:10	29:57	32:26	35:19	42:2I	50:44	54:40	57:07	59:34	1:09:18	1:19:27	1:28:32	1:36:48	2:05:35
530 435 3356 3540 3851 4653 5548 100008 100550 100531 11614 112733 113733 114619 2.1809 540 4448 3336 3645 40102 47759 5730 10157 10444 10730 11833 130002 114010 114913 14924 212120 530 4532 34456 3750 4113 4924 3911 10146 10638 10029 120310 13520 13520 144010 144010 6100 500 3556 3855 4223 50149 10053 10633 10633 11028 12230 13520 145610 220042 6200 517 3756 4100 4444 5233 10234 10723 11026 13128 12230 13520 145010 12242 630 512 3856 4220 4455 53503 100537 11104 11413 11726 33060 200237 221390 6400 533 3936 4314 4706 6628 10738 11233 11609 11925 13214 14456 15802 220904 214712 6590 542 4056 4419 4817 5752 10920 14444 18803 12214 13443 14852 22003 22031 7100 558 4455 4524 4927 5937 11101 11633 11938 12323 13393 13503 22063 22031 710 558 4455 4629 5038 100042 11243 11823 11938 12323 13393 2306 2333 23649 710 558 4455 44639 5038 100042 11243 11831 11233 11300 11443 120010 22144 22143 710 558 4455 44639 5038 100042 11243 11831 11233 11300 11443 120010 22144 22144 22144 710 548 4445 4410 104456 11747 12349 11273 11310 114658 22042 22144 22143 22143 710 613 4455 4459 444 4410 104456 11747 12349 11273 13110 114658 22042 22144 22143 22143 810 648 4853 4853 4853 4853 100440 112243 11323 13310 14658 22042 22144 22143 33044 810 648 4853 6455 6450 645	5:10	4:18	30:57	33:31	36:30	43:45	52:25	56:29	59:01	1:01:33	1:11:37	1:22:06	1:31:29	I:40:02	2:09:46
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Price Pric									1:19:58	1:23:23					2:55:49
Time		-		_	_		I:I2:43	1:18:21						_	
Property	7:20	6:07		47:34	51:49	1:02:06	I:I4:24	I:20:I0	1:23:46	I:27:2I	1:41:39	1:56:31	2:09:50	2:21:59	3:04:II
Times		6:15				1:03:31		I:22:00							
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7.8 Minute Correction Table

This is a table to account for the fact that $arcsin x \approx x$ (when both as expressed as radians) only is true for smaller values of x. Values of 230 minutes or more are indeterminate, as the sun never passes the desired depression angle at the desired latitude and declination combination.

For time in range:	Add:
I - 53	0:00
54 - 1:16	0:01
1:17 - 1:30	0:02
1:31 - 1:40	0:03
1:41 - 1:48	0:04
1:49 - 1:55	0:05
1:56 - 2:01	0:06
2:02 - 2:06	0:07
2:07 - 2:11	0:08
2:12 - 2:15	0:09
2:16 - 2:19	0:10
2:20 - 2:23	O:II
2:24 - 2:26	0:12
2:27 - 2:28	0:13
2:30 - 2:32	0:14
2:33 - 2:35	0:15
2:36 - 2:38	0:16
2:39 - 2:40	0:17
2:41 - 2:43	0:18
2:44 - 2:45	0:19
2:46 - 2:47	0:20
2:48 - 2:49	0:21
2:50 - 2:51	0:22
2:52 - 2:53	0:23
2:54 - 2:55	0:24
2:57 - 2:57	0:25
2:58 - 2:59	0:26
3:00	0:27
3:01 - 3:02	0:28
3:03	0:29
3:04 - 3:05	0:30
3:06	0:31
3:07 - 3:08	0:32
3:09	0:33
3:10	0:34
3:11	0:35
3:12 - 3:13	0:36
	0.50

For time in range:	Add:
3:04	0:37
3:05	0:38
3:06	0:39
3:07	0:40
3:08	0:41
3:09	0:42
3:10	0:43
3:11	0:44
3:12	0:45
3:13	0:46
3:14	0:48
3:15	0:49
3:16	0:50
3:17	0:51
3:18	0:53
3:19	0:54
3:20	0:56
3:21	0:57
3:22	0:59
3:23	1:00
3:24	I:02
3:25	I:04
3:26	1:06
3:27	1:08
3:28	I:IO
3:29	1:12
3:30	1:15
3:31	1:18
3:32	I:20
3:33	I:24
3:34	I:27
3:35	1:31
3:36	1:36
3:37	I:4I
3:38	1:49
3:39	2:02

7.9 Time Zone Table

This is a table of timezones. To obtain the conversion minutes for a location, find the number of degrees for the timezone and subtract the longitude of a location (noting that the longitude will be negative for places in the Western hemisphere). The letters match those sometimes used on maps. A dash in the "major locations" column indicates that the only places in this timezone have no territory with a large population. Some time zones that are not a whole numbers of hours offset which have very small populations (such as the Marquesas Islands or Eucla, Australia) are not included, but the degrees can still be obtained by multiplying the UTC offset hours by 15.

DST offsets are not included in this list. If your location observes Daylight Saving Time, add the DST offset (in nearly all locations this is one hour) when "summer time" is in effect.

UTC offset	Letter Code	Degrees	Time Zones and Countries	
-12:00	Y	-180°	-	
-11:00	X	-165°	Niue, American Samoa	
-10:00	W	-150°	Aleutian Islands, Hawai'i, French Polynesia, Cook Islands	
-09:00	V	-135°	Alaska	
-08:00	U	-120°	Pacific Time (US and Canada), Northwest Time (Mexico), Pitcairn Islands	
-07:00	T	-105°	Mountain Time (US and Canada), Pacific Time (Mexico)	
-06:00	S	-90°	Central Time (US, Canada, and Mexico), Central America (except Panama), Galápagos Islands	
-05:00	R	-75°	Eastern Time (US and Canada), Quintana Roo (Mexico), Bahamas, Haiti, Cuba, Panama, Colombia, Peru, Ecuador, Acre Time (Brazil)	
-04:00	Q	-60°	Atlantic Time (US and Canada), Antigua and Barbuda, Barbados, Amazon Time (Brazil)	
-03:30	-	-52.5°	Newfoundland Time (Canada)	
-03:00	P	-45°	Brasilia Time (Brazil), Uruguay, Argentina, Suriname	
-02:00	0	-30°	Greenland	
-01:00	N	-15°	Cape Verde, Azores	
00:00	Z	o°	Greenwich Mean Time, Western European Time, Burkina Faso, Ivory Coast, the Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, São Tomé and Príncipe, Senegal, Sierra Leone, Togo	
+01:00	A	15°	Central European Time, West Africa Time	
+02:00	В	30°	Eastern European Time, Central Africa Time, Israel, Lebanon, Cyprus	
+03:00	С	45°	Moscow Time (Russia), Belarus, Turkey, Syria, Iraq, Jordan, Kuwait, Saudi Arabia, Yemen, East Africa Time	
+03:30	-	52.5°	Iran	
+04:00	D	60°	Samara Time (Russia), Armenia, Azerbaijan, Georgia, UAE, Oman, Seychelles, Mauritius	
+04:30	-	60°	Afghanistan	
+05:00	Е	75°	Yekaterinburg Time (Russia), Aktobe Time (Kazakhstan), Uzbekistan, Turkmenistan, Tajikistan, Pakistan	
+05:30	-	82.5°	India, Sri Lanka	
+05:45	-	86.25°	Nepal	
+06:00	F	90°	Omsk Time (Russia), Almaty Time (Kazakhstan), Kyrgyzstan, Bangladesh	
+06:30	F	97·5°	Myanmar	
+07:00	G	105°	Krasnoyarsk Time (Russia), Laos, Thailand, Cambodia, Vietnam, Western Indonesia Time	
+08:00	Н	120°	Irkutsk Time (Russia), Mongolia, China, Philippines, Singapore, Malaysia, Central Indonesia Time, Australian Western Time	
+09:00	I	135°	Yakutsk Time (Russia), Korea, Japan, Palau, Eastern Indonesia Time	
+09:30	-	142.5°	Australian Central Time	
+10:00	K	150°	Vladivostok Time (Russia), Guam, Micronesia, Papua New Guinea, Australian Eastern Time	
+11:00	L	165°	Magadan Time (Russia), Solomon Islands, Vanuatu	
+12:00	M	180°	Kamchatka Time (Russia), Marshall Islands, Tuvalu, Fiji, New Zealand	
+13:00	-	-165°	Samoa, Tonga	
113.00		10)	Juniou, Tongu	

7.10 Sample Calculations

7.10.1 Example 1

A Jewish passenger aboard the RMS *Titanic* has been among the first rescued in the early morning of April 15 following the ship's sinking. He wants to know whether *misheyakir* is soon enough to be worth staying awake to daven, or if he should nap now. The date is 15 April, and his watch is set to the *Titanic*'s ship's time as of 14 April, which is 2:58 behind GMT. Because the ship is moving picking up survivors, the position is rounded to approximately 41°N 50°W.

Our passenger is able to borrow the nautical almanac from the bridge while the crew is distracted picking up survivors. The equation of time is zero minutes, and the declination is 10°N. Per the chart, the zero-degree offset is 31 minutes, and the time per degree is 5:22. Since being rescured from a boat that sunk is a exigent circumstance, our protagonist is willing to use a lenient early depression angle of 11°30', if it enables him to daven soon and then get some sleep. Per the multiplication table, 5 * 11°30' (adjusted) is 57:07, and 22 * 11°30' is 4:11. 31+57+4 yields 1:32. Per the correction table, we must add 3 minutes to this zman, for a total of 1:35. Since we are looking for a morning zman the result is 1:35 before 6am, or 4:25am solar time (which is equivalent to 4:25am local time since the equation of time is zero).

Titanic's ship's time is not in a time zone, so the time zone offset must be computed manually. Multiply the offset from GMT by 15 to get a number of degrees, so -2:58 times 15 is -44°30'. The longitude is 50°W (expressed normally as -50°), so the offset for the time zone is four times 5°30', or 24 minutes. Noting the signs in the formula for time zone offset, this time must be subtracted to get our zman. The result is 4:04am Titanic ship's time. Since the first passengers were rescued at 4am, misheyakir will occur soon, and it is worth davening now before trying to get some sleep.

7.10.2 Example 2

A group of Briskers who keep the "ochtal" are shipwrecked on Nelsons Island in the Indian Ocean. What time is havdala for them on August 26? Their position is 5°41′S 72°19′E, and their watches are still set to Israeli summer time from their origin.

As these Briskers lack an almanac, they must use the date table. The zman must be calculated from scratch since all the gavras were too busy looking at a heftza to notice when the sun set. The declination on this day is 10°N and the equation of time is two minutes. From the declination-latitude table, the 0° offset is between 3 and 4 minutes (let's go with 3), and the time per degree is 4:04. In the multiplication table the result of 19°45' times 4 is 1:17, so the result is one hour seventeen minutes plus one minute seventeen seconds. Rounding to the nearest minute, the result is 1:18. Our selected date is in winter, the total time is 1:18-3, which is 1:15. Per the correction table, we must add one minute to this time, which yields 1:16, or 7:16pm solar time. Add 2 minutes from the equation of time, for 7:18pm local time. The UTC offset for Israeli time is +2 hours, but only +1 hours for summer time, which translates to 15° in the time zone table. 15° minus 72°19′ is -56°41′, to convert to minutes multiply by 4, which yields -1:47. The result is then 5:31pm Israel summer time.

7.10.3 Example 3

A Jewish resident of Tristan da Cunha (37°4′S 12°19′W, observes UTC with no offset) in 2023 wishes to participate in the festivities of Ratting Day on Friday June 2nd, but will need to make sure to know when to light Shabbat candles. Equation of time is -2, declination is 22°N. The offset is 69 minutes (negative since it's wintertime), the minutes per degree is 5:24. 5:24 times 50' works out to about 4:30, let's use 4 minutes to be slightly more stringent so the error in the declination and equation of time won't combine to give us less time before sunset than planned. -69+4 is 65, to which we add one minute per the correction table. Sunset is at 4:55pm solar time, which is 4:53pm local time. 12°19′W times four is 49:16, we'll round to 49 minutes (which need to be added, since our location is West of the center of the time zone). Sunset is at approximately 5:42pm, and with a standard candle lighting time of 18 minutes before sunset, candles should be lit at 5:24.

Since the counting and measuring of rat tails does not take place until 5:30pm, our protagonist will sadly not be present to see who wins the awards for "most tails" and "longest tail".

7.10.4 Example 4

Chabad of Rockall (57°36'N 13°41'W, would presumably observe GMT if it had any residents⁵) has shaḥarit at 10am. Will this Chabad reach sof zeman tefila on June 18th?

The equation of time is 1 minute, and declination is 23°N. The 0° offset is 149 minutes (1:29), and the minutes per degree is 7:59 (since close to the solstice declination is a bit higher than 23°N, let's round it to an even 8 minutes). 8 minutes times 50' is 6:40 per the multiplication table. Since it's summer, both these figures are positive, so the total is 2:37. To this we must add 16 minutes per the correction table, so a total of 2:53. This works out to 3:07am solar time.

As noted in the instructions, we can save ourselves some work by calculating the zman in solar time, then converting to local time (and then standard time), taking advantage of the fact that 12 noon is hatzos. The time from sunrise to noon is 8:53. Divided into 6 equal hours yields 1:29. Two of these proportional hours before noon is 9:02am.

We then add one minute for the equation of time (9:03am). For the time zone correction, 13°41′ times four is 55 minutes (to be added). Sof zeman tefila will be 9:58am. If, however, Rockall observes DST along with Britain, the time would be an hour later, at 10:58am. For the sake of those davening at Chabad of Rockall, we'd better hope that Rockall observes DST.

7.10.5 Example 5

The hypothetical Jewish community of the Pitcairn Islands (25°S) wants to use a fixed number of minutes after sunset to make havdala, based on how many minutes are needed to get to a depression angle of 8°30' all year round.

The highest value for minutes per degree (at the solstices) is 4:48. Since the absolute highest declination is a little less than 23.5°, let's extrapolate that to 4:49.

There are two ways to compute the amount of time. First, manually. Sunset is 50', the adjusted depression angle is 8°28', so we must multiply 4:49 by 7°38'. The result is 28 minutes plus 343 seconds plus 152 seconds plus 31 seconds, or expressed more conventionally, 36:46 (round to 37 minutes).

The multiplication table can also be used. Using the column for sunset with 4:49, sunset is 3:20 + 41 seconds = 4 minutes after the sun is at 0° (this can be determined even more easily by estimating based on the values for 4 and 5 in the sunset column). Using the 8°30' column, havdala is 33:53 plus 6:54 after 0°, for a total of 41 minutes. Since we're interested in time after sunset, the result is 37 minutes, the same as the previous method.

Before telling everyone to make havdala 37 minutes after sunset, we need to check whether any correction is necessary. At the summer solstice, when the o° offset and the time for degrees are both positive, is when the correction factor from the correction table will be highest. The offset is about 46 minutes, for a total of 1:23. Per the correction table, we'll need to add two minutes, so the standard time for havdala should be 39 minutes after sunset.

⁵Though it is geographically better suited to Cape Verde and Azores time, I'm assuming residents would find it convenient to share a time zone with the UK and Ireland

Part II Selected Halakhot for Gabbaim

Chapter 8

Liturgical Halakhot

8.1 Introduction

This guide is intended as a quick-reference for liturgical questions that come up frequently and require an immediate answer, and are more in-depth than siddur instructions typically have. It therefore omits discussion of the obligation of prayer, times for the different liturgies, attire for prayer, and other more regularly-occurring matters of ritual law. It also omits significant amounts of halakhic discussion and relevant details for the sake of conciseness.

Given that this guide is a summary of summaries, it should not be used as an authoritative halakhic guide. When possible a more comprehensive text should be consulted. This text is designed for when doing so would cause undo interruption or a burden on the congregation.

The guide is primarily based on the English translation of Peninei Halakha. When it cites major codes, the citations are referenced here. This has been supplemented by references to the Kitzur Shulhan Arukh and other sources as noted. Citations to the Shulhan Arukh are abbreviated to the section ("OC" or "YD") and Siman.

8.2 Situations where Prayer is Forbidden

It is forbidden to pray near uncovered excrement, smelly garbage, or other foul smells. A person must be four cubits (approximately 2 meters or $6\frac{1}{2}$ feet) from the source of the smell or where they cannot smell it, whichever is further, even if they themselves cannot smell it (*PH Prayer*, 3:9 citing OC 79).

The above does not apply to feces of babies who do not eat much solid food, since it does not smell as bad as that of adults or animals (ibid., 4:3 citing OC 81). Diapers, catheters, and the like are considered "covered" (ibid., 4:4).

One may not hold an item they are afraid will fall during prayer, unless they would be afraid the item would be stolen and that would interfere with proper attention to praying (ibid., 5:7 citing OC 96).

One may not pray when they need to use the toilet (ibid., 5:8 citing Berakhot 15a).

A person who is tipsy should not pray, but if they do so their obligation is fulfilled. A person who is inebriated may not pray (ibid., 5:11 citing OC 99).

8.3 A Diminished Minyan

If a portion of the minyan leaves during any prayer requiring a minyan, the prayer may be completed as long as the majority of the minyan remains (ibid., 2:10 citing OC 55).

The repetition of the Amidah is considered the same prayer, but Birkat Kohanim and the Torah service are not. In Ashkenazi practice, kaddishes after the Amidah up to and including the following Full Kaddish are considered the same prayer. The blessings of Shema and the Amidah that follows are considered different prayers (ibid.).

If a minyan was absent for Pesukei DeZimra and Yishtabaḥ was recited, and then a minyan was formed, a few verses should be read before Half Kaddish is recited (*Kitzur SA*, 15:1)

8.4 Interruptions in Liturgy

8.4.1 During Pesukei DeZimra

Pesukei DeZimra is the portion of the service between Barukh She'amar and Yishtabaḥ. Needless interruptions are forbidden during that period, with the following exceptions (based on *Koren Siddur*, "Table of Permitted Responses" and *PH Prayer*, 16:5):

- Answering "amen" to a blessing
- The congregational response to kedusha and barekhu
- Reciting modim derabbanan
- Answering אמן יהי שמה רבא וכו׳ in kaddish
- Reciting the first verse of shema with the congregation
- Reciting the blessing after using the toilet, on thunder, or on lightening
- Respond to a respected person's greeting, or greet a person out of fear
- Between paragraphs: greet a respected person, or respond to anyone's greeting
- Receive an aliya (though such a person shouldn't be given an aliya unless they're the only Kohen or Levi)

In all these cases it is preferable to interrupt between paragraphs if possible, and the interruption should be between verses.

Between Pesukei DeZimra and Shaḥarit it is permitted to make communal announcements that cannot wait until after Full Kaddish (ibid., 16:2). Otherwise, any interruption at this point is forbidden, besides those permitted during Pesukei DeZimra.

8.4.2 During the Shema and its Blessings

During the Shema and its blessings, interruptions are forbidden with the following exceptions (based on *Koren Siddur*, "Table of Permitted Responses" and *PH Prayer*, 16:5):

- The congregational response to kedusha (but only the lines beginning קדוף and ברוך and barekhu
- Reciting only the words מודים אנחנו לך from modim derabbanan
- Answering אמן יהי שמה רבא וכו׳ in kaddish
- Receive an aliya (but not in the middle of the first verse of the Shema)
- Respond to a respected person's greeting, or greet a person out of fear
- Between paragraphs, greet a respected person, or respond to anyone's greeting
- Between paragraphs, recite the blessing on thunder and lighting
- Between paragraphs, answer 128 to a blessing

8.4.3 During the Amidah

Interruptions during the Amidah are forbidden, even congregational responses to Kaddish and Kedusha. It is considered an interruption to put on a tallit if it has fallen off (though it may be adjusted, OC 97:4). It is permitted to walk to somewhere else if there is a distraction preventing prayer in the original location (ibid., 17:15).

If an interruption is long enough that one could have finished the Amidah in the length of the interruption, the Amidah must be started again (PH Prayer 18:1).

8.5 Time-Related Errors in Liturgy

In all these cases, if the shaliah tzibbur makes a mistake in their silent Amidah they need not repeat it even if it would normally be required if this would cause undo delay for the community (*Kitzur SA*, 19:13)

8.5.1 Requests for Rain

Mashiv HaRuah Mashiv haRuah is recited beginning at Musaf on the first day of Pesah until Musaf on Shemini Atzeret. If it is omitted in winter or recited in summer, one must begin the Amidah again (unless the berakha has not been completed, in which case resume from the point of the error). But if "Morid HaTal" was recited in summer, the Amidah may be continued as normal (*PH Prayer*, 18:4-5 citing OC 114).

If Mashiv haRuaḥ was recited during Arvit or shaḥarit on Shemini Atzeret, or omitted on Pesaḥ, the Amidah need not be repeated (*Kitzur SA*, 19:2, 4).

Tal uMatar The request for rain in the weekday Amidah is recited during the rainy season. In the Land of Israel it is begun on the 7th of Marḥeshvan at Arvit (i.e. the beginning of the 7th) (PH Prayer, 18:5 citing OC 117).

Elsewhere it is begun 60 days after the Autumnal Equinox, which for this purpose is reckoned according to the Julian calendar (Tekufat Shemuel). In the 21st century this works out to 'Arvit on December 4th, or December 5th in years immediately before a civil leap year. It moves one day on the Gregorian calendar later every time there is a Julian leap year that is not a Gregorian leap year, which occurs every Gregorian year that is divisible by 100 but not by 400. When such a year occurs, treat the year before as the year before a leap year. Then in the non-leap year the request for rain moves one year later. For example, in the year 2099 the request will begin December 5th, and on December 5th (or 6th, in years before a leap year) thereafter until 2198.

In both locations it is said until Passover. If it was forgotten and the blessing was concluded, it should be inserted in the blessing of שמע קולינו (before שנוע if on a fast). If that blessing was concluded, return to the blessing of "mevarekh hashanim". If the Amidah was completed, it must be recited again (ibid.).

8.5.2 Shabbat and Festival Liturgical Texts

On Shabbat and Festivals, the blessing of Hashkiveinu is concluded with מומר סכת שלום וכר instead of the weekday text, שומר עמו ישרא לעד. If the weekday text was said by mistake and the error was not caught immediately, one need not repeat the blessing.

If the weekday Amidah was mistakenly said on Shabbat or a Festival and the mistake was realized during the middle portion of the Amidah, the blessing currently being said is completed, and the middle blessing for Shabbat or Festivals should be recited and the Amidah continued as usual (*Kitzur SA*, 76:16). This does not apply to Musaf, where one should not complete the blessing currently being recited (ibid., 76:19). If the mistake was realized during the concluding three blessings, stop and return to the middle blessing for Shabbat or Festivals and continue as usual. If the Amidah was already completed, recite the Amidah from the beginning with the correct text (ibid., 76:18).

If the Shabbat Amidah was recited on a Festival or the reverse, if the central blessing was recited incorrectly one must return to the beginning of the central blessing of the Amidah. If the Amidah was completed it must be recited over again. The same applies to erroneously including or omitting reference to Shabbat in the concluding berakha, and to mentioning the wrong holiday (*PH Festivals*, 2:3:4)

8.5.3 Holiday Liturgical Additions

Havdalah in the Amidah is recited at the end of Shabbat and Festivals. If forgotten the Amidah is not repeated, since Havdalah will also be said separately (*PH Prayer*, 18:2 citing OC 422).

Ya'aleh veYavo is recited on festivals and Rosh Ḥodesh. If omitted, the Amidah must be repeated, except at Arvit on Rosh Ḥodesh. If the omission is realized before the Amidah is complete, return to Retzei and continue from there (ibid.).

Al Hanisim is recited on Hanukkah and Purim. If omitted the Amidah is not repeated (ibid., citing OC 682).

If Aneinu, recited on fast days, is forgotten, the Amidah is not repeated (ibid., citing OC 565). It may be inserted in שמוע , or if it is forgotten there, during the paragraph following the Amidah before taking three steps backwards.

During the Ten Days of Repentance, if with is forgotten and the error is not fixed within a moment, return to the beginning of the Amidah. Other additions to not require repeating the Amidah.

If a holiday addition was mistakenly recited on a weekday, return to the beginning of the berakha if the berakha has not been concluded. If the berakha has been completed, continue as usual without returning or repeating.

8.5.4 Cases of Doubt

If one is unsure whether they included a special insertion to the Amidah that is required, they must assume they omitted it and repeat the Amidah. The same is true for the requests for rain (or lack thereof) within 30 days of beginning / ending including the request. In such a case, one should have in mind that if they did recite the correct text, the repeated text should be considered a voluntary extra prayer (ibid., 18:6).

8.6 Birkat Hamazon

8.6.1 When to Recite Birkat Hamazon

Birkat Hamazon is recited after a meal where an olive's size of bread is eaten. It should be recited within 72 minutes of the end of the meal. If this time already elapsed, it may be recited as long as one is not yet hungry (*Kitzur SA*, 44:8).

Birkat Hamazon should be recited at the same location as the meal. If a person forgot and went somewhere else, they may eat some bread at the new location and recite Birkat Hamazon there. If not, they must return to the location of the meal if possible. If that is impossible or the time to recite Birkat Hamazon would pass, it is recited at the new location (ibid., 44:9).

8.6.2 Errors in Additions to Birkat Hamazon

In all below cases, if a berakha has been partially said, if only הובן אחה has been said, conclude the line לְּמְוְדֵנִי, which forms a complete verse (Psalms 119:12), and proceed as though the berakha had not been begun. If אהינו was said, the berakha cannot be un-said, and either continue with the berakha or return to the beginning, depending on the rule for the specific case.

Retzei and Ya'aleh ve Yavo Retzei is added on Shabbat, and Ya'aleh ve Yavo is added on Festivals and Rosh Ḥodesh. If forgotten and the berakha of ברוך אתה ה' אהינו forgotten and the next berakha has already been begun (the one that begins ברוך אתה ה' אהינו וכוי):

- On Shabbat and festivals at the evening or first daytime meal, repeat Birkat Hamazon
- On Shabbat and festivals at the third meal, do not repeat Birkat Hamazon
- On Rosh Ḥodesh, do not repeat Birkat Hamazon
- On Ḥol HaMo'ed, do not repeat Birkat Hamazon

If the berakha of בונה ירושלים has been completed but the next berakha has not begun, add a compensatory blessing. The texts are as follows:

בַּרוּך אַתַּה יִי צֹהֵינוּ מֵלֶךְ הַעוֹלַם אֲשֶׁר נַתַּן...

- If Retzei was forgotten on Shabbat:
 - שַׁבְּתוֹת לִמְנוֹחָה לְעַמוֹ יִשְׁרָאֵל בְּאַהֲבָה לְאוֹת וְלִבְרִית: בְּרוּךְ אַתָּה יְיָ מְקַדֵּשׁ הַשַּׁבְּת:
- If Ya'aleh veYavo was forgotten on Festivals. On Shabbat if Retzei was forgotten as well, add the words in parentheses.
 - ... שַּבְּתוֹת לִמְנוּחָה לְעַמּוֹ יִשְּׂרָאֵל בְּאַהֲבָה לְאוֹת וְלִבְרִית וְ)יָמִים טוֹבִים לְשָּׁשׁוֹן וּלְשִׁמְחָה אֶת־יוֹם חַג :הַזָּה: בַּרוּדְ אַתַּה יִיַ מִקְדֵּשׁ (הַשַּׁבַּת וְ)יִשׂרָאֵל וְהַזְּמֵנִים:
- If Ya'aleh veYavo was forgotten on Rosh Ḥodesh. On Shabbat if Retzei was forgotten as well, add the words in parentheses.

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ַשַּבָּתוֹת לִמְנוּחָה לְעַמּוֹ יִשְּׂרָאֵל בְּאַהֲבָה לְאוֹת וְלִבְרִית וְ)רָאשֵׁי חֲדָשִׁים לְזִכְּרוֹן: (בְּרוּךְ אַתְּה יְיָ מְקַהֵּשׁׂ
הַשַּׁבַּת וִישִּׁרָאֵל וְרַאשֵׁי חַדִּשִׁים:)
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Al ha Nisim Al ha Nisim is recited on Ḥanukka and Purim. If forgotten, Birkat ha Mazon is not repeated. If the mistake is realized before completing Birkat Hamazon, add to the הַרְחַמָּן הוֹא יַשְשֶׁה לְנוּ נִפִּים וְנִפְּלְאוֹת section הרחמן הוֹא יַשְשֶׁה לְנוּ נִפִים וְנִפְּלְאוֹת הוֹמוֹ בּוְמֵן הַנָּה followed by the text for that day, beginning with either בימי מרדכי (Kitzur SA, 44:16).

8.7 Priority List for Aliyot

A Kohen recieves the first aliya, and a Levi the second. If there is no Kohen, a Levi need not be called first (or second). If there is no Levi, the same Kohen is called for the first two aliyot. In a case of great need the Kohen may be asked to leave so a Yisrael can be called instead.

There are variations in local custom of the priority list for aliyot. This is one such list(ibid., 78:11):

- 1. A person getting married that day
- 2. A
- 3. A child reaching Bar-Mitzva, either on a weekday or on the following Shabbat
- 4. A new parent
- 5. On Shabbat, a person who got married the previous week on Wednesday or later
- 6. Someone observing a Yortzeit
- 7. On Shabbat, a parent whose son will get a Brit Mila in the following week
- 8. Someone who needs to recite Gomel or is leaving on a journey

A person may waive their precedence to receive an aliya.

Chapter 9

Problems in Sifrei Torah

The following are considered errors in the Sefer Torah (ibid., 24:1):

- A missing letter that changes the meaning of the word, including grammatical gender. A change of spelling that does not affect the meaning does not invalidate the Torah, though it should be fixed ¹
- An extra letter (unless the mistake is between a haser and malei spelling)
- One letter split such that it looks like two letters
- Two letters joined together to look like one letter
- One letter substituted for another
- An incorrect paragraph division, either missing or superfluous
- The majority of the seam between two sheets is torn (though if no other Torah is available it may be used if the tear is in a different book of the Torah. If it is in that book, it may be used if there is no other Torah if five seams remain)
- Wax or a similar substance obscures the words of the portion being read

In a case of doubt, a child is shown the doubtful letter. If they read it correctly, the Torah may be used, if not it is invalid.

9.1 When an Invalidation is Found

When a problem in a Sefer Torah is discovered between aliyot, the reading is continued with the next aliya from a kosher Sefer Torah from the point the previous aliya ended. If a problem is discovered in the middle of an aliya, a kosher Torah is taken out and the reading is resumed without interruption. If the error occurred in the middle of a sentence, the reading in the kosher Torah should resume from the beginning of that sentence. No new initial berakha on the aliya should be recited (so long as the oleh does not do any unnecessary conversation while the scrolls are swapped), and the concluding blessing should be recited as usual on the kosher Sefer Torah. If there are less than three verses remaining in the aliya, the reader should go back and repeat verses from the kosher Sefer Torah so that three verses are read from the kosher Sefer Torah (ibid., 24:8).

The following are exceptions to the above:

• If the mistake is in a place where the aliya may be ended (three or more verses from a paragraph break and not in the curses), customs vary. Some end the aliya there, the oleh recites the blessing, and the next aliya begins from the kosher Sefer Torah. This is the recommendation of the Rema (*PH Prayer*, 22:2 citing OC 146).

^{&#}x27;Note that ' can be part of the root even if it does not have an independent vowel associated with it, in which case it missing the letter would invalidate the Torah. For example, if in the phrase אל תירא הגר it was spelled ארות the Torah is invalid (Kitzur SA, 24:1)

- If the problem is discovered in Maftir, a new Torah need not be brought out. Instead, the Maftir is completed as usual, but no concluding berakha on the aliya is recited. This applies only when the Maftir is a portion repeated from the last aliya. If the Maftir is from a second Torah, the rules as on other occasions apply (*Kitzur SA*, 78:8).
- On a Shabbat Mincha, Monday, or Thursday, if the problem is found in the final aliya and in a location where the aliya can be ended (not within 3 verses of a paragraph break and after 3 verses), the reading can be concluded at that spot. The concluding blessing is recited and the service continues as usual.

On Shabbat, if possible, Hosafot should be added to make the remaining reading into 7 aliyot (ibid., 24:7).

On a day when multiple Sifrei Torah are used, the other scrolls already used or planned to be used should not be used to replace the invalid scroll. Instead a third or fourth Torah should be used, if available (ibid., 78:10).

If no kosher Sefer Torah is available, the readings may proceed from an invalid one, but without the blessings on the aliyot. In such a case the berakhot on the Haftarah are not recited either (ibid., 79:10)

If no other Torah is available, an invalid Sefer Torah may be used if the error is not in the book currently being read. This leniency does not apply to Shabbat afternoon (ibid., 24:10).