*fam7 fall thru table	loop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

	1	ı	I	T	I	I	T	T	I	F	T
			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
ps		level 7	-	by 7	by 11	by 13	by 17	by 19	-	by 29	Factor
7	_	0	7		0.64	0.54		0.37	0.30	0.24	TRUE
37		1	37	5.29	3.36	2.85		1.95		1.28	FALSE
67		2		9.57	6.09	5.15	3.94	3.53	2.91	2.31	FALSE
97		3		13.86	8.82	7.46		5.11	4.22	3.34	FALSE
127	7	4	127	18.14	11.55	9.77	7.47	6.68	5.52	4.38	FALSE
157	7	5	157	22.43	14.27	12.08	9.24	8.26	6.83	5.41	FALSE
187	7	6	187	26.71	17.00	14.38	11.00	9.84	8.13	6.45	TRUE
217	7	7	217	31.00	19.73	16.69	12.76	11.42	9.43	7.48	TRUE
247	7	8	247	35.29	22.45	19.00	14.53	13.00	10.74	8.52	TRUE
277	7	9	277	39.57	25.18	21.31	16.29	14.58	12.04	9.55	FALSE
307	7	10	307	43.86	27.91	23.62	18.06	16.16	13.35	10.59	FALSE
337	7	11	337	48.14	30.64	25.92	19.82	17.74	14.65	11.62	FALSE
367	7	12	367	52.43	33.36	28.23	21.59	19.32	15.96	12.66	FALSE
397	7	13	397	56.71	36.09	30.54	23.35	20.89	17.26	13.69	FALSE
427	7	14	427	61.00	38.82	32.85	25.12	22.47	18.57	14.72	TRUE
457	7	15	457	65.29	41.55	35.15	26.88	24.05	19.87	15.76	FALSE
487	7	16	487	69.57	44.27	37.46	28.65	25.63	21.17	16.79	FALSE
517	7	17	517	73.86	47.00	39.77	30.41	27.21	22.48	17.83	TRUE
547	7	18	547	78.14	49.73	42.08	32.18	28.79	23.78	18.86	FALSE
577	7	19	577	82.43	52.45	44.38	33.94	30.37	25.09	19.90	FALSE
607	7	20	607	86.71	55.18	46.69	35.71	31.95	26.39	20.93	FALSE
637	7	21	637	91.00	57.91	49.00	37.47	33.53	27.70	21.97	TRUE
667	7	22	667	95.29	60.64	51.31	39.24	35.11	29.00	23.00	TRUE
697	7	23	697	99.57	63.36	53.62	41.00	36.68	30.30	24.03	TRUE
727	7	24	727	103.86	66.09	55.92	42.76	38.26	31.61	25.07	FALSE
757	7	25	757	108.14	68.82	58.23	44.53	39.84	32.91	26.10	FALSE
787	7	26	787	112.43	71.55	60.54	46.29	41.42	34.22	27.14	FALSE
817	7	27	817	116.71	74.27	62.85	48.06		35.52	28.17	TRUE
847	7	28	847	121.00	77.00	65.15	49.82	44.58	36.83	29.21	TRUE

*fam7 fall thru table	loop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30	
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29	

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
s	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
877	7	29	877	125.29	79.73	67.46	51.59	46.16	38.13	30.24	FALSE
907	7	30	907	129.57	82.45	69.77	53.35	47.74	39.43	31.28	FALSE
937	7	31	937	133.86	85.18	72.08	55.12	49.32	40.74	32.31	FALSE
967	7	32	967	138.14	87.91	74.38	56.88	50.89	42.04	33.34	FALSE
997	7	33	997	142.43	90.64	76.69	58.65	52.47	43.35	34.38	FALSE
1027	7	34	1027	146.71	93.36	79.00	60.41	54.05	44.65	35.41	TRUE
1057	7	35	1057	151.00	96.09	81.31	62.18	55.63	45.96	36.45	TRUE
1087	7	36	1087	155.29	98.82	83.62	63.94	57.21	47.26	37.48	FALSE
1117	7	37	1117	159.57	101.55	85.92	65.71	58.79	48.57	38.52	FALSE
1147	7	38	1147	163.86	104.27	88.23	67.47	60.37	49.87	39.55	FALSE
1177	7	39	1177	168.14	107.00	90.54	69.24	61.95	51.17	40.59	TRUE
1207	7	40	1207	172.43	109.73	92.85	71.00	63.53	52.48	41.62	TRUE
1237	7	41	1237	176.71	112.45	95.15	72.76	65.11	53.78	42.66	FALSE
1267	7	42	1267	181.00	115.18	97.46	74.53	66.68	55.09	43.69	TRUE
1297	7	43	1297	185.29	117.91	99.77	76.29	68.26	56.39	44.72	FALSE
1327	7	44	1327	189.57	120.64	102.08	78.06	69.84	57.70	45.76	FALSE
1357	7	45	1357	193.86	123.36	104.38	79.82	71.42	59.00	46.79	TRUE
1387	7	46	1387	198.14	126.09	106.69	81.59	73.00	60.30	47.83	TRUE
1417	7	47	1417	202.43	128.82	109.00	83.35	74.58	61.61	48.86	TRUE
1447	7	48	1447	206.71	131.55	111.31	85.12	76.16	62.91	49.90	FALSE
1477	7	49	1477	211.00	134.27	113.62	86.88	77.74	64.22	50.93	TRUE
1507	7	50	1507	215.29	137.00	115.92	88.65	79.32	65.52	51.97	TRUE
1537	7	51	1537	219.57	139.73	118.23	90.41	80.89	66.83	53.00	TRUE
1567	7	52	1567	223.86	142.45	120.54	92.18	82.47	68.13	54.03	FALSE
1597	7	53	1597	228.14	145.18	122.85	93.94	84.05	69.43	55.07	FALSE
1627	7	54	1627	232.43	147.91	125.15	95.71	85.63	70.74	56.10	FALSE
1657	7	55	1657	236.71	150.64	127.46	97.47	87.21	72.04	57.14	FALSE
1687	7	56	1687	241.00	153.36	129.77	99.24	88.79	73.35	58.17	TRUE
1717	7	57	1717	245.29	156.09	132.08	101.00	90.37	74.65	59.21	TRUE

*fam7 fall thru table loc	oop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
s	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
1747	7	58	1747	249.57	158.82	134.38	102.76	91.95	75.96	60.24	FALSE
1777	7	59	1777	253.86	161.55	136.69	104.53	93.53	77.26	61.28	FALSE
1807	7	60	1807	258.14	164.27	139.00	106.29	95.11	78.57	62.31	TRUE
1837	7	61	1837	262.43	167.00	141.31	108.06	96.68	79.87	63.34	TRUE
1867	7	62	1867	266.71	169.73	143.62	109.82	98.26	81.17	64.38	FALSE
1897	7	63	1897	271.00	172.45	145.92	111.59	99.84	82.48	65.41	TRUE
1927	7	64	1927	275.29	175.18	148.23	113.35	101.42	83.78	66.45	FALSE
1957	7	65	1957	279.57	177.91	150.54	115.12	103.00	85.09	67.48	TRUE
1987	7	66	1987	283.86	180.64	152.85	116.88	104.58	86.39	68.52	FALSE
2017	7	67	2017	288.14	183.36	155.15	118.65	106.16	87.70	69.55	FALSE
2047	7	68	2047	292.43	186.09	157.46	120.41	107.74	89.00	70.59	TRUE
2077	7	69	2077	296.71	188.82	159.77	122.18	109.32	90.30	71.62	FALSE
2107	7	70	2107	301.00	191.55	162.08	123.94	110.89	91.61	72.66	TRUE
2137	7	71	2137	305.29	194.27	164.38	125.71	112.47	92.91	73.69	FALSE
2167	7	72	2167	309.57	197.00	166.69	127.47	114.05	94.22	74.72	TRUE
2197	7	73	2197	313.86	199.73	169.00	129.24	115.63	95.52	75.76	TRUE
2227	7	74	2227	318.14	202.45	171.31	131.00	117.21	96.83	76.79	TRUE
2257	7	75	2257	322.43	205.18	173.62	132.76	118.79	98.13	77.83	FALSE
2287	7	76	2287	326.71	207.91	175.92	134.53	120.37	99.43	78.86	FALSE
2317	7	77	2317	331.00	210.64	178.23	136.29	121.95	100.74	79.90	TRUE
2347	7	78	2347	335.29	213.36	180.54	138.06	123.53	102.04	80.93	FALSE
2377	7	79	2377	339.57	216.09	182.85	139.82	125.11	103.35	81.97	FALSE
2407	7	80	2407	343.86	218.82	185.15	141.59	126.68	104.65	83.00	TRUE
2437	7	81	2437	348.14	221.55	187.46	143.35	128.26	105.96	84.03	FALSE
2467	7	82	2467	352.43	224.27	189.77	145.12	129.84	107.26	85.07	FALSE
2497	7	83	2497	356.71	227.00	192.08	146.88	131.42	108.57	86.10	TRUE
2527	7	84	2527	361.00	229.73	194.38	148.65	133.00	109.87	87.14	TRUE
2557	7	85	2557	365.29	232.45	196.69	150.41	134.58	111.17	88.17	FALSE
2587	7	86	2587	369.57	235.18	199.00	152.18	136.16	112.48	89.21	TRUE

*fam7 fall thru table	loop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
ps	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
2617	7	87	2617	373.86	237.91	201.31	153.94	137.74	113.78	90.24	FALSE
2647	7	88	2647	378.14	240.64	203.62	155.71	139.32	115.09	91.28	FALSE
2677	7	89	2677	382.43	243.36	205.92	157.47	140.89	116.39	92.31	FALSE
2707	7	90	2707	386.71	246.09	208.23	159.24	142.47	117.70	93.34	FALSE
2737	7	91	2737	391.00	248.82	210.54	161.00	144.05	119.00	94.38	TRUE
2767	7	92	2767	395.29	251.55	212.85	162.76	145.63	120.30	95.41	FALSE
2797	7	93	2797	399.57	254.27	215.15	164.53	147.21	121.61	96.45	FALSE
2827	7	94	2827	403.86	257.00	217.46	166.29	148.79	122.91	97.48	TRUE
2857	7	95	2857	408.14	259.73	219.77	168.06	150.37	124.22	98.52	FALSE
2887	7	96	2887	412.43	262.45	222.08	169.82	151.95	125.52	99.55	FALSE
2917	7	97	2917	416.71	265.18	224.38	171.59	153.53	126.83	100.59	FALSE
2947	7	98	2947	421.00	267.91	226.69	173.35	155.11	128.13	101.62	TRUE
2977	7	99	2977	425.29	270.64	229.00	175.12	156.68	129.43	102.66	TRUE
3007	7	100	3007	429.57	273.36	231.31	176.88	158.26	130.74	103.69	FALSE
3037	7	101	3037	433.86	276.09	233.62	178.65	159.84	132.04	104.72	FALSE
3067	7	102	3067	438.14	278.82	235.92	180.41	161.42	133.35	105.76	FALSE
3097	7	103	3097	442.43	281.55	238.23	182.18	163.00	134.65	106.79	TRUE
3127	7	104	3127	446.71	284.27	240.54	183.94	164.58	135.96	107.83	FALSE
3157	7	105	3157	451.00	287.00	242.85	185.71	166.16	137.26	108.86	TRUE
3187	7	106	3187	455.29	289.73	245.15	187.47	167.74	138.57	109.90	FALSE
3217	7	107	3217	459.57	292.45	247.46	189.24	169.32	139.87	110.93	FALSE
3247	7	108	3247	463.86	295.18	249.77	191.00	170.89	141.17	111.97	TRUE
3277	7	109	3277	468.14	297.91	252.08	192.76	172.47	142.48	113.00	TRUE
3307	7	110	3307	472.43	300.64	254.38	194.53	174.05	143.78	114.03	FALSE
3337			3337	476.71	303.36		196.29	175.63	145.09	115.07	FALSE
3367	7	112	3367	481.00	306.09	259.00	198.06	177.21	146.39	116.10	TRUE
3397	7	113	3397	485.29	308.82	261.31	199.82	178.79	147.70	117.14	FALSE
3427	7	114	3427	489.57	311.55	263.62	201.59	180.37	149.00	118.17	TRUE
3457	7	115	3457	493.86	314.27	265.92	203.35	181.95	150.30	119.21	FALSE

*fam7 fall thru table	loop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
ps	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
3487	7	116	3487	498.14	317.00	268.23	205.12	183.53	151.61	120.24	TRUE
3517	7	117	3517	502.43	319.73	270.54	206.88	185.11	152.91	121.28	FALSE
3547	7	118	3547	506.71	322.45	272.85	208.65	186.68	154.22	122.31	FALSE
3577	7	119	3577	511.00	325.18	275.15	210.41	188.26	155.52	123.34	TRUE
3607	7	120	3607	515.29	327.91	277.46	212.18	189.84	156.83	124.38	FALSE
3637	7	121	3637	519.57	330.64	279.77	213.94	191.42	158.13	125.41	FALSE
3667	7	122	3667	523.86	333.36	282.08	215.71	193.00	159.43	126.45	TRUE
3697	7	123	3697	528.14	336.09	284.38	217.47	194.58	160.74	127.48	FALSE
3727	7	124	3727	532.43	338.82	286.69	219.24	196.16	162.04	128.52	FALSE
3757	7	125	3757	536.71	341.55	289.00	221.00	197.74	163.35	129.55	TRUE
3787	7	126	3787	541.00	344.27	291.31	222.76	199.32	164.65	130.59	TRUE
3817	7	127	3817	545.29	347.00	293.62	224.53	200.89	165.96	131.62	TRUE
3847	7	128	3847	549.57	349.73	295.92	226.29	202.47	167.26	132.66	FALSE
3877	7	129	3877	553.86	352.45	298.23	228.06	204.05	168.57	133.69	FALSE
3907	7	130	3907	558.14	355.18	300.54	229.82	205.63	169.87	134.72	FALSE
3937	7	131	3937	562.43	357.91	302.85	231.59	207.21	171.17	135.76	FALSE
3967	7	132	3967	566.71	360.64	305.15	233.35	208.79	172.48	136.79	FALSE
3997	7	133	3997	571.00	363.36	307.46	235.12	210.37	173.78	137.83	TRUE
4027	7	134	4027	575.29	366.09	309.77	236.88	211.95	175.09	138.86	FALSE
4057	7	135	4057	579.57	368.82	312.08	238.65	213.53	176.39	139.90	FALSE
4087	7	136	4087	583.86	371.55	314.38	240.41	215.11	177.70	140.93	FALSE
4117	7	137	4117	588.14	374.27	316.69	242.18	216.68	179.00	141.97	TRUE
4147	7	138	4147	592.43	377.00	319.00	243.94	218.26	180.30	143.00	TRUE
4177	7	139	4177	596.71	379.73	321.31	245.71	219.84	181.61	144.03	FALSE
4207	7	140	4207	601.00	382.45	323.62	247.47	221.42	182.91	145.07	TRUE
4237	7	141	4237	605.29	385.18	325.92	249.24	223.00	184.22	146.10	TRUE
4267	7	142	4267	609.57	387.91	328.23	251.00	224.58	185.52	147.14	TRUE
4297	7	143	4297	613.86	390.64	330.54	252.76	226.16	186.83	148.17	FALSE
4327	7	144	4327	618.14	393.36	332.85	254.53	227.74	188.13	149.21	FALSE

*fam7 fall thru table loop until sq root of ps
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*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
ps	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
4357	7	145	4357	622.43	396.09	335.15	256.29	229.32	189.43	150.24	FALSE
4387	7	146	4387	626.71	398.82	337.46	258.06	230.89	190.74	151.28	FALSE
4417	7	147	4417	631.00	401.55	339.77	259.82	232.47	192.04	152.31	TRUE
4447	7	148	4447	635.29	404.27	342.08	261.59	234.05	193.35	153.34	FALSE
4477	7	149	4477	639.57	407.00	344.38	263.35	235.63	194.65	154.38	TRUE
4507	7	150	4507	643.86	409.73	346.69	265.12	237.21	195.96	155.41	FALSE
4537	7	151	4537	648.14	412.45	349.00	266.88	238.79	197.26	156.45	TRUE
4567	7	152	4567	652.43	415.18	351.31	268.65	240.37	198.57	157.48	FALSE
4597	7	153	4597	656.71	417.91	353.62	270.41	241.95	199.87	158.52	FALSE
4627	7	154	4627	661.00	420.64	355.92	272.18	243.53	201.17	159.55	TRUE
4657	7	155	4657	665.29	423.36	358.23	273.94	245.11	202.48	160.59	FALSE
4687	7	156	4687	669.57	426.09	360.54	275.71	246.68	203.78	161.62	FALSE
4717	7	157	4717	673.86	428.82	362.85	277.47	248.26	205.09	162.66	FALSE
4747	7	158	4747	678.14	431.55	365.15	279.24	249.84	206.39	163.69	FALSE
4777	7	159	4777	682.43	434.27	367.46	281.00	251.42	207.70	164.72	TRUE
4807	7	160	4807	686.71	437.00	369.77	282.76	253.00	209.00	165.76	TRUE
4837	7	161	4837	691.00	439.73	372.08	284.53	254.58	210.30	166.79	TRUE
4867	7	162	4867	695.29	442.45	374.38	286.29	256.16	211.61	167.83	FALSE
4897	7	163	4897	699.57	445.18	376.69	288.06	257.74	212.91	168.86	FALSE
4927	7	164	4927	703.86	447.91	379.00	289.82	259.32	214.22	169.90	TRUE
4957	7	165	4957	708.14	450.64	381.31	291.59	260.89	215.52	170.93	FALSE
4987	7	166	4987	712.43	453.36	383.62	293.35	262.47	216.83	171.97	FALSE
5017	7	167	5017	716.71	456.09	385.92	295.12	264.05	218.13	173.00	TRUE
5047	7	168	5047	721.00	458.82	388.23	296.88	265.63	219.43	174.03	TRUE
5077	7	169	5077	725.29	461.55	390.54	298.65	267.21	220.74	175.07	FALSE
5107	7	170	5107	729.57	464.27	392.85	300.41	268.79	222.04	176.10	FALSE
5137	7	171	5137	733.86	467.00	395.15	302.18	270.37	223.35	177.14	TRUE
5167	7	172	5167	738.14	469.73	397.46	303.94	271.95	224.65	178.17	FALSE
5197	7	173	5197	742.43	472.45	399.77	305.71	273.53	225.96	179.21	FALSE

Ţ	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29
-	1 and +30	17 and +30	19 and + 30	11 and + 30	13 and + 30	29 and + 30	23 and + 30
l	L0 and +7	L6 and + 11	L21 an + 13	L23 and + 17	L8 and +19	L22 and + 23	L22 and + 29

			*fam1	*fam7	*fam11	*fam13	*fam17	*fam19	*fam23	*fam29	
ps	start	level 7	by 1	by 7	by 11	by 13	by 17	by 19	by 23	by 29	Factor
5227	7	174	5227	746.71	475.18	402.08	307.47	275.11	227.26	180.24	FALSE
5257	7	175	5257	751.00	477.91	404.38	309.24	276.68	228.57	181.28	TRUE