

Messier Marathon List

with DataThis file presents the Messier objects in the order of the Marathon Search Sequence given by Don Machholz in his Messier Marathon Observer's Guide.

Also available as plain ascii file.

The Messier Marathon Search Sequence

compiled online by Hartmut Frommert, using work of Don Machholz. Depending on geographic location, it may be impossible to find them all, and may be better to slightly modify this list. In case of doubt consult Don Machholz's book. This list should be good for northern latitudes 20 to 40.

No.	M#	NGC#	Con	Type	ra	dec	B	dim	d
1.	M77	1068	Cet	5	02 42.7	-00 01	8.9	7x6	60000
2.	M74	628	Psc	5	01 36.7	+15 47	9.4	10.2x9.5	35000
3.	M33	598	Tri	5	01 33.9	+30 39	5.7	73x45	3000
4.	M31	224	And	5	00 42.7	+41 16	3.4	178x63	2900
5.	M32	221	And	6	00 42.7	+40 52	8.1	8x6	2900
6.	M110	205	And	6	00 40.4	+41 41	8.5	17x10	2900
7.	M52	7654	Cas	1	23 24.2	+61 35	7.3	13.0	5.0
8.	M103	581	Cas	1	01 33.2	+60 42	7.4	6.0	8.5
9.	M76	650	Per	3	01 42.4	+51 34	10.1	2.7x1.8	3.4
10.	M34	1039	Per	1	02 42.0	+42 47	5.5	35.0	1.4
11.	M45	-	Tau	1	03 47.0	+24 07	1.6	110.0	0.38
12.	M79	1904	Lep	2	05 24.5	-24 33	7.7	8.7	42.1
13.	M42	1976	Ori	4	05 35.4	-05 27	4.0	85x60	1.6
14.	M43	1982	Ori	4	05 35.6	-05 16	9.0	20x15	1.6
15.	M78	2068	Ori	4	05 46.7	+00 03	8.3	8x6	1.6
16.	M1	1952	Tau	9	05 34.5	+22 01	8.4	6x4	6.3
17.	M35	2168	Gem	1	06 08.9	+24 20	5.3	28.0	2.8
18.	M37	2099	Aur	1	05 52.4	+32 33	6.2	24.0	4.4
19.	M36	1960	Aur	1	05 36.1	+34 08	6.3	12.0	4.1
20.	M38	1912	Aur	1	05 28.4	+35 50	7.4	21.0	4.2
21.	M41	2287	CMa	1	06 46.0	-20 44	4.6	38.0	2.3
22.	M93	2447	Pup	1	07 44.6	-23 52	6.0	22.0	3.6
23.	M47	2422	Pup	1	07 36.6	-14 30	5.2	30.0	1.6
24.	M46	2437	Pup	1	07 41.8	-14 49	6.0	27.0	5.4
25.	M50	2323	Mon	1	07 03.2	-08 20	6.3	16.0	3
26.	M48	2548	Hya	1	08 13.8	-05 48	5.5	54.0	1.5
27.	M44	2632	Cnc	1	08 40.1	+19 59	3.7	95.0	0.577
28.	M67	2682	Cnc	1	08 50.4	+11 49	6.1	30.0	2.7
29.	M95	3351	Leo	5	10 44.0	+11 42	9.7	4.4x3.3	38000
30.	M96	3368	Leo	5	10 46.8	+11 49	9.2	6x4	38000
31.	M105	3379	Leo	6	10 47.8	+12 35	9.3	2.0	38000
32.	M65	3623	Leo	5	11 18.9	+13 05	9.3	8x1.5	35000
33.	M66	3627	Leo	5	11 20.2	+12 59	8.9	8x2.5	35000
34.	M81	3031	UMa	5	09 55.6	+69 04	6.9	21x10	12000
35.	M82	3034	UMa	7	09 55.8	+69 41	8.4	9x4	12000
36.	M97	3587	UMa	3	11 14.8	+55 01	9.9	3.4x3.3	2.6
37.	M108	3556	UMa	5	11 11.5	+55 40	10.0	8x1	45000
38.	M109	3992	UMa	5	11 57.6	+53 23	9.8	7x4	55000
39.	M40	Win4	UMa	C	12 22.4	+58 05	8.4	0.8	0.51

40.	M106	4258	CVn	5	12	19.0	+47	18	8.4	19x8	25000
41.	M94	4736	CVn	5	12	50.9	+41	07	8.2	7x3	14500
42.	M63	5055	CVn	5	13	15.8	+42	02	8.6	10x6	37000
43.	M51	5194	CVn	5	13	29.9	+47	12	8.4	11x7	37000
44.	M101	5457	UMa	5	14	03.2	+54	21	7.9	22.0	27000
45.	M102?	5866	Dra	8	15	06.5	+55	46	9.9	5.2x2.3	40000
46.	M53	5024	Com	2	13	12.9	+18	10	7.6	12.6	59.7
47.	M64	4826	Com	5	12	56.7	+21	41	8.5	9.3x5.4	19000
48.	M3	5272	CVn	2	13	42.2	+28	23	6.2	16.2	33.9
49.	M98	4192	Com	5	12	13.8	+14	54	10.1	9.5x3.2	60000
50.	M99	4254	Com	5	12	18.8	+14	25	9.9	5.4x4.8	60000
51.	M100	4321	Com	5	12	22.9	+15	49	9.3	7x6	60000
52.	M85	4382	Com	8	12	25.4	+18	11	9.1	7.1x5.2	60000
53.	M84	4374	Vir	8	12	25.1	+12	53	9.1	5.0	60000
54.	M86	4406	Vir	8	12	26.2	+12	57	8.9	7.5x5.5	60000
55.	M87	4486	Vir	6	12	30.8	+12	24	8.6	7.0	60000
56.	M89	4552	Vir	6	12	35.7	+12	33	9.8	4.0	60000
57.	M90	4569	Vir	5	12	36.8	+13	10	9.5	9.5x4.5	60000
58.	M88	4501	Com	5	12	32.0	+14	25	9.6	7x4	60000
59.	M91	4548	Com	5	12	35.4	+14	30	10.2	5.4x4.4	60000
60.	M58	4579	Vir	5	12	37.7	+11	49	9.7	5.5x4.5	60000
61.	M59	4621	Vir	6	12	42.0	+11	39	9.6	5x3.5	60000
62.	M60	4649	Vir	6	12	43.7	+11	33	8.8	7x6	60000
63.	M49	4472	Vir	6	12	29.8	+08	00	8.4	9x7.5	60000
64.	M61	4303	Vir	5	12	21.9	+04	28	9.7	6x5.5	60000
65.	M104	4594	Vir	5	12	40.0	-11	37	8.0	9x4	50000
66.	M68	4590	Hya	2	12	39.5	-26	45	7.8	12.0	33.3
67.	M83	5236	Hya	5	13	37.0	-29	52	7.6	11x10	15000
68.	M5	5904	Ser	2	15	18.6	+02	05	5.6	17.4	24.5
69.	M13	6205	Her	2	16	41.7	+36	28	5.8	16.6	25.1
70.	M92	6341	Her	2	17	17.1	+43	08	6.4	11.2	26.7
71.	M57	6720	Lyr	3	18	53.6	+33	02	8.8	1.4x1.0	2.3
72.	M56	6779	Lyr	2	19	16.6	+30	11	8.3	7.1	32.9
73.	M29	6913	Cyg	1	20	23.9	+38	32	7.1	7.0	4.0
74.	M39	7092	Cyg	1	21	32.2	+48	26	4.6	32.0	0.825
75.	M27	6853	Vul	3	19	59.6	+22	43	7.4	8.0x5.7	1.25
76.	M71	6838	Sge	2	19	53.8	+18	47	8.2	7.2	12.7
77.	M107	6171	Oph	2	16	32.5	-13	03	7.9	10.0	20.9
78.	M12	6218	Oph	2	16	47.2	-01	57	6.7	14.5	16.0
79.	M10	6254	Oph	2	16	57.1	-04	06	6.6	15.1	14.4
80.	M14	6402	Oph	2	17	37.6	-03	15	7.6	11.7	29.0
81.	M9	6333	Oph	2	17	19.2	-18	31	7.7	9.3	26.7
82.	M4	6121	Sco	2	16	23.6	-26	32	5.6	26.3	7.2
83.	M80	6093	Sco	2	16	17.0	-22	59	7.3	8.9	32.6
84.	M19	6273	Oph	2	17	02.6	-26	16	6.8	13.5	28.4
85.	M62	6266	Oph	2	17	01.2	-30	07	6.5	14.1	22.5
86.	M6	6405	Sco	1	17	40.1	-32	13	5.3	25.0	2
87.	M7	6475	Sco	1	17	53.9	-34	49	4.1	80.0	0.8
88.	M11	6705	Sct	1	18	51.1	-06	16	6.3	14.0	6
89.	M26	6694	Sct	1	18	45.2	-09	24	8.0	15.0	5
90.	M16	6611	Ser	1	18	18.8	-13	47	6.4	7.0	7
91.	M17	6618	Sgr	4	18	20.8	-16	11	7.0	11.0	5
92.	M18	6613	Sgr	1	18	19.9	-17	08	7.5	9.0	4.9
93.	M24	>6603	Sgr	B	18	16.9	-18	29	4.6	90	10
94.	M25	I4725	Sgr	1	18	31.6	-19	15	6.5	40.0	2
95.	M23	6494	Sgr	1	17	56.8	-19	01	6.9	27.0	2.15
96.	M21	6531	Sgr	1	18	04.6	-22	30	6.5	13.0	4.25

97.	M20	6514	Sgr	4	18	02.6	-23 02	9.0	28.0	5.2
98.	M8	6523	Sgr	4	18	03.8	-24 23	6.0	90x40	5.2
99.	M28	6626	Sgr	2	18	24.5	-24 52	6.8	11.2	18.6
100.	M22	6656	Sgr	2	18	36.4	-23 54	5.1	24.0	10.4
101.	M69	6637	Sgr	2	18	31.4	-32 21	7.6	7.1	28.0
102.	M70	6681	Sgr	2	18	43.2	-32 18	7.9	7.8	29.4
103.	M54	6715	Sgr	2	18	55.1	-30 29	7.6	9.1	88.7
104.	M55	6809	Sgr	2	19	40.0	-30 58	6.3	19.0	17.6
105.	M75	6864	Sgr	2	20	06.1	-21 55	8.5	6.0	61.3
106.	M15	7078	Peg	2	21	30.0	+12 10	6.2	12.3	33.6
107.	M2	7089	Aqr	2	21	33.5	-00 49	6.5	12.9	37.9
108.	M72	6981	Aqr	2	20	53.5	-12 32	9.3	5.9	55.4
109.	M73	6994	Aqr	A	20	58.9	-12 38	9.0	2.8	2.0
110.	M30	7099	Cap	2	21	40.4	-23 11	7.2	11.0	26.1

Key:

Type:

1=Open Cluster, 2=Globular Cluster, 3=Planetary Nebula, 4=Diffuse Nebula,
5=Spiral Galaxy, 6=Elliptical Galaxy, 7=Irregular Galaxy, 8=Lenticular (S0)
Galaxy, 9=Supernova Remnant, A=Group or Asterism of Four stars, B=Star Cloud,
C=Double Star

ra:

right ascension in hours minutes.decimal seconds

dec:

declination in degrees minutes

B:

apparent visual brightness in magnitudes

dim:

apparent (angular) dimension in arc minutes

d:

distance in kilo-light-years

Messier Marathon Home

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