

## OAOG Challenge - Messier Objects

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
1952	M1	TAU	NB	05:34:30	22:00:55	8.4	5.9			3	Jul23-May11	Oct6-Dec15-Feb24	Jul31-May3	Crab Nebula
7089	M2	AQR	GC	21:33:28	-00:49:06	6	6.9			1	Mar13-Jan25	Jul12-Aug15-Nov9	Apr6-Jan17	
5272	M3	CVN	GC	13:42:12	28:22:50	6	17			1	All Year	Jan17-Apr17-May21	Oct23-Oct16	
6121	M4	SCO	GC	16:23:25	-26:31:52	5.9	25			1	Jan7-Sep23	Mar21-May28-Jun22	Jan24-Aug20	
5904	M5	SER	GC	15:18:36	02:04:58	6.2	12			1	Nov23-Oct28	Feb19-May12-Jun8	Dec2-Oct9	
6405	M6	SCO	OC	17:40:05	-32:12:52	4.6	24	331		1	Feb15-Oct8	May4-Jun17-Jul17	Mar26-Aug24	Butterfly Cluster
6475	M7	SCO	OC	17:53:53	-34:48:52	5	59	54		1	Mar5-Oct1	May12-Jun20-Jul24	-	
6523	M8	SGR	NB	18:03:47	-24:22:55	5	76			1	Feb2-Nov11	May17-Jun23-Jul29	Feb23-Oct21	Lagoon Nebula
6333	M9	OPH	GC	17:19:11	-18:30:56	8	8.5			2	Jan9-Nov7	Apr22-Jun11-Jul9	Jan24-Oct19	
6254	M10	OPH	GC	16:57:05	-04:06:00	7	7.9			2	Dec19-Nov22	Apr9-Jun6-Jul1	Dec29-Nov7	
6705	M11	SCT	OC	18:51:05	-06:16:01	6	11	682		1	Jan19-Dec18	Jun5-Jul5-Aug25	Feb2-Dec8	Wild Duck Cluster
6218	M12	OPH	GC	16:47:11	-01:57:01	8	9.5			2	Dec15-Nov21	Apr3-Jun3-Jun28	Dec25-Nov7	
6205	M13	HER	GC	16:41:41	36:27:49	5.7	22			1	All Year	Apr1-Jun2-Jun27	All Year	Hercules Cluster
6402	M14	OPH	GC	17:37:35	-03:15:01	9	5.8			2	Dec28-Dec4	May3-Jun16-Jul16	Jan7-Nov22	
7078	M15	PEG	GC	21:29:58	12:09:54	6.5	9.5			1	Feb16-Feb4	Jul12-Aug14-Nov8	Mar7-Jan26	
6611	M16	SER	NB	18:18:47	-13:46:59	6	6.9			1	Jan19-Dec2	May23-Jun27-Aug6	Feb3-Nov19	Eagle Nebula
6618	M17	SGR	NB	18:20:47	-16:10:58	6	44			1	Jan23-Nov30	May24-Jun27-Aug7	Feb9-Nov16	Swan or Omega Nebula
6613	M18	SGR	OC	18:19:53	-17:07:58	8	6.9	40		2	Jan24-Nov28	May24-Jun27-Aug6	Feb10-Nov13	
6273	M19	OPH	GC	17:02:35	-26:15:53	7	4.7			2	Jan17-Oct13	Apr12-Jun7-Jul3	Feb5-Sep13	
6514	M20	SGR	NB	18:02:17	-23:01:55	6.3	24			1	Jan29-Nov13	May16-Jun22-Jul28	Feb18-Oct25	Trifid Nebula
6531	M21	SGR	OC	18:04:35	-22:29:56	7	9.5	63		2	Jan29-Nov15	May17-Jun23-Jul29	Feb18-Oct27	
6656	M22	SGR	GC	18:36:22	-23:53:56	6	17			1	Feb12-Nov22	May31-Jul1-Aug16	Mar8-Nov4	
6494	M23	SGR	OC	17:56:47	-19:00:57	7	29	131		2	Jan20-Nov19	May13-Jun21-Jul25	Feb6-Nov2	
6603	M24	SGR	OC	18:18:23	-18:24:57	4.6	89			2	Jan26-Nov25	May22-Jun26-Aug5	Feb12-Nov10	Delle Caustiche
IC4725	M25	SGR	OC	18:31:35	-19:14:58	6	19	601		1	Feb1-Nov28	May29-Jun30-Aug13	Feb20-Nov13	
6694	M26	SCT	OC	18:45:11	-09:24:01	9.5	8.5	120		3	Jan21-Dec14	Jun3-Jul3-Aug21	Feb5-Dec2	
6853	M27	VUL	PN	19:59:34	22:42:53	8	8			1	All Year	Jun24-Jul22-Oct2	All Year	Dumbell Nebula

## OAOG Challenge - Messier Objects

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
6626	M28	SGR	GC	18:24:29	-24:51:56	8	5.8			2	Feb10-Nov16	May26-Jun28-Aug9	Mar6-Oct27	
6913	M29	CYG	OC	20:23:52	38:31:53	7	6.9	81		1	All Year	Jun29-Jul28-Oct13	All Year	Cooling Tower Cluster
7099	M30	CAP	GC	21:40:22	-23:11:06	8	5.8			2	May15-Jan5	Jul13-Aug17-Nov12	Jun7-Dec25	
224	M31	AND	GX	00:42:41	41:16:01	3.4	170		Sb	1	All Year	Aug14-Oct2-Dec29	All Year	Andromeda Galaxy
221	M32	AND	GX	00:42:41	40:52:00	8.2	7.9		E	1	All Year	Aug14-Oct2-Dec29	Apr3-Mar30	
598	M33	TRI	GX	01:33:53	30:38:58	5.7	59		Sc	2	May8-Apr7	Aug23-Oct15-Jan8	Jun1-Mar29	Pinwheel Galaxy
1039	M34	PER	OC	02:41:59	42:47:03	5.2	29	50		1	All Year	Sep4-Nov1-Jan22	May29-Apr23	Spinal Cluster
2168	M35	GEM	OC	06:08:54	24:19:55	5.1	29	434		1	Jul27-May18	Oct13-Dec24-Mar2	Aug4-May10	
1960	M36	AUR	OC	05:36:06	34:07:59	6	11	50		1	Jul12-May22	Oct6-Dec15-Feb24	Jul21-May13	Pinwheel Cluster
2099	M37	AUR	OC	05:52:24	32:32:58	5.6	23	1842		1	Jul17-May23	Oct9-Dec19-Feb27	Jul26-May14	Salt-and-Pepper Cluster
1912	M38	AUR	OC	05:28:42	35:50:00	6.4	20	160		1	Jul8-May23	Oct5-Dec13-Feb22	Jul18-May13	
7092	M39	CYG	OC	21:32:10	48:25:56	5	29	28		2	All Year	Jul12-Aug15-Nov9	All Year	
	M40	UMA	ST	12:22:24	58:05:00	9	0.8			3	All Year	Dec27-Mar28-May8	All Year	
2287	M41	CMA	OC	06:47:01	-20:44:15	4.5	36	69		1	Sep7-Apr21	Oct20-Jan2-Mar9	Sep16-Apr12	
1976	M42	ORI	NB	05:35:24	-05:27:13	4	59			1	Aug12-Apr21	Oct6-Dec15-Feb24	Aug20-Apr13	Orion Nebula
1982	M43	ORI	NB	05:35:36	-05:16:17	9	19			1	Aug12-Apr21	Oct6-Dec15-Feb24	Aug20-Apr13	
2632	M44	CNC	OC	08:40:07	19:58:53	3.1	89	161		1	Aug26-Jun11	Nov11-Jan31-Mar30	Sep3-Jun2	Praesepe/Behive Cluster
Mel22	M45	TAU	OC	03:45:48	24:21:56	1.5	89			1	Jul2-Apr24	Sep16-Nov18-Feb3	Jul11-Apr16	Pleiades Cluster
2437	M46	PUP	OC	07:41:49	-14:49:12	6.1	26	186		1	Sep11-May6	Oct31-Jan16-Mar19	Sep20-Apr27	
2422	M47	PUP	OC	07:36:37	-14:30:12	4.4	29	117		1	Sep10-May5	Oct30-Jan15-Mar18	Sep19-Apr27	
2548	M48	HYA	OC	08:13:49	-05:48:10	5.8	38	37		1	Sep9-May18	Nov6-Jan24-Mar25	Sep18-May10	
4472	M49	VIR	GX	12:29:49	07:59:55	8.4	7.9		E	2	Oct17-Aug15	Dec29-Mar30-May9	Oct25-Jul22	
2323	M50	MON	OC	07:03:13	-08:20:12	6	19	15		2	Aug30-May4	Oct23-Jan6-Mar12	Sep7-Apr26	Heart-Shaped Cluster
5194	M51	CVN	GX	13:29:54	47:11:48	8.1	10		Sc	1	All Year	Jan13-Apr14-May19	All Year	Whirlpool Galaxy
7654	M52	CAS	OC	23:24:10	61:35:02	7	11	173		2	All Year	Jul31-Sep12-Dec11	All Year	Cas. Salt-and-Pepper
5024	M53	COM	GC	13:12:54	18:09:53	8	9.5			2	Oct17-Oct2	Jan9-Apr10-May16	Oct26-Sep7	
6715	M54	SGR	GC	18:55:04	-30:28:56	9	5.8			3	Mar13-Nov13	Jun6-Jul6-Aug27	Apr23-Oct16	

## OAOG Challenge - Messier Objects

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
6809	M55	SGR	GC	19:39:58	-30:57:58	7	14			2	Apr9-Nov25	Jun19-Jul17-Sep22	May20-Nov1	
6779	M56	LYR	GC	19:16:35	30:10:52	8	4.7			2	All Year	Jun13-Jul11-Sep8	All Year	
6720	M57	LYR	PN	18:53:35	33:01:51	9.7	1.3			2	All Year	Jun6-Jul5-Aug26	All Year	Ring Nebula
4579	M58	VIR	GX	12:37:42	11:48:54	9.8	4.7		Sb	3	Oct15-Aug29	Dec31-Apr1-May10	Oct24-Aug3	
4621	M59	VIR	GX	12:42:00	11:38:54	9.8	1.9		E	3	Oct16-Aug30	Jan1-Apr2-May11	Oct25-Aug5	
4649	M60	VIR	GX	12:43:37	11:32:54	8.8	3.4		E	2	Oct17-Aug31	Jan1-Apr2-May11	Oct25-Aug6	
4303	M61	VIR	GX	12:21:55	04:27:55	9.7	4.7		Sb	3	Oct18-Aug2	Dec27-Mar28-May8	Oct27-Jul12	
6266	M62	OPH	GC	17:01:11	-30:06:52	6.5	8.5			2	Jan26-Sep28	Apr12-Jun7-Jul3	Feb20-Aug20	
5055	M63	CVN	GX	13:15:48	42:01:48	8.6	8.5		Sb	2	All Year	Jan9-Apr11-May17	All Year	Sunflower Galaxy
4826	M64	COM	GX	12:56:42	21:40:52	8.6	7.4		Sb	2	Oct11-Oct1	Jan4-Apr6-May14	Oct20-Sep7	Black Eye Galaxy
3623	M65	LEO	GX	11:18:55	13:04:53	9.3	9.5		Sa	2	Sep29-Jul19	Dec13-Mar12-Apr27	Oct8-Jul2	Leo Triplet Galaxy
3627	M66	LEO	GX	11:20:13	12:58:53	9	8.5		Sb	2	Sep30-Jul19	Dec13-Mar12-Apr27	Oct8-Jul3	Leo Triplet Galaxy
2682	M67	CNC	OC	08:50:25	11:48:42	7	29	324		2	Sep3-Jun6	Nov13-Feb2-Apr1	Sep11-May29	
4590	M68	HYA	GC	12:39:31	-26:44:56	8	8.5			2	Nov20-Jun16	Dec31-Apr1-May11	Dec2-Jun3	
6637	M69	SGR	GC	18:31:22	-32:20:54	7.5	3.9			2	Mar10-Oct30	May29-Jun30-Aug13	Apr26-Sep21	
6681	M70	SGR	GC	18:43:10	-32:17:54	8	3.9			3	Mar16-Nov3	Jun2-Jul3-Aug20	May2-Sep28	
6838	M71	SGE	GC	19:53:46	18:46:54	9	5.8			3	All Year	Jun22-Jul21-Sep29	Jan20-Jan13	
6981	M72	AQR	GC	20:53:28	-12:32:04	8.6	2.9			2	Mar18-Jan7	Jul5-Aug5-Oct26	Apr14-Dec29	
6994	M73	AQR	OC	20:58:58	-12:38:05	8.9	3			3	Mar21-Jan8	Jul6-Aug6-Oct28	Apr17-Dec30	
628	M74	PSC	GX	01:36:41	15:46:53	9.2	9.5		Sc	3	Jun9-Mar25	Aug23-Oct16-Jan9	Jun21-Mar17	
6864	M75	SGR	GC	20:06:04	-21:55:01	8	2.9			3	Mar19-Dec18	Jun25-Jul24-Oct5	Apr18-Dec5	
650	M76	PER	PN	01:42:17	51:35:05	10.1	2			3	All Year	Aug24-Oct17-Jan10	All Year	Little Dumbell Nebula
1068	M77	CET	GX	02:42:41	-00:01:12	8.8	6.9		Sb	2	Jul9-Mar25	Sep4-Nov1-Jan22	Jul17-Mar17	
2068	M78	ORI	NB	05:46:42	00:02:48	8	7.9			2	Aug10-Apr27	Oct8-Dec18-Feb26	Aug18-Apr19	
1904	M79	LEP	GC	05:24:30	-24:33:19	8.4	7.4			2	Aug27-Apr2	Oct4-Dec12-Feb22	Sep6-Mar23	
6093	M80	SCO	GC	16:16:59	-22:58:53	7.2	8.5			2	Dec31-Oct1	Mar18-May27-Jun20	Jan14-Sep2	
3031	M81	UMA	GX	09:55:38	69:03:56	6.9	25		Sb	1	All Year	Nov26-Feb19-Apr13	All Year	Bode's Galaxy

## OAOG Challenge - Messier Objects

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
3034	M82	UMA	GX	09:55:50	69:40:56	8.4	8.5		Irr	1	All Year	Nov26-Feb19-Apr13	All Year	Bode's Galaxy
5236	M83	HYA	GX	13:37:00	-29:51:53	8	9.5		S	2	Dec6-Jun24	Jan15-Apr16-May20	Dec21-Jun8	Southern Pinwheel Galaxy
4374	M84	VIR	GX	12:25:07	12:52:54	9.3	3.9		Eab	3	Oct12-Aug24	Dec28-Mar29-May8	Oct21-Jul29	Markarian's Chain
4382	M85	COM	GX	12:25:25	18:10:53	9.3	4.7		S0	3	Oct8-Sep6	Dec28-Mar29-May8	Oct17-Aug11	
4406	M86	VIR	GX	12:26:13	12:56:54	9.2	6.9		Ecd	3	Oct12-Aug24	Dec28-Mar29-May9	Oct21-Jul30	
4486	M87	VIR	GX	12:30:48	12:23:54	8.6	6.9		E	2	Oct14-Aug26	Dec29-Mar30-May9	Oct22-Jul31	Virgo A / Smoking Gun
4501	M88	COM	GX	12:32:00	14:24:53	9.5	5.8		Sb	3	Oct12-Sep1	Dec29-Mar31-May9	Oct21-Aug6	Markarian's Chain
4552	M89	VIR	GX	12:35:42	12:32:54	9.8	2.9		E	3	Oct14-Aug29	Dec30-Mar31-May10	Oct23-Aug4	
4569	M90	VIR	GX	12:36:48	13:09:54	9.5	8.5		Sb	3	Oct14-Aug31	Dec31-Apr1-May10	Oct23-Aug5	
4548	M91	COM	GX	12:35:24	14:12:53	10.2	4.2		Sc	3	Oct12-Sep3	Dec30-Mar31-May10	Oct21-Aug8	
6341	M92	HER	GC	17:17:05	43:07:48	6.5	7.9			1	All Year	Apr21-Jun11-Jul8	All Year	
2447	M93	PUP	OC	07:44:37	-23:52:13	6.2	19	36		2	Sep21-Apr27	Oct31-Jan17-Mar20	Oct1-Apr18	Butterfly Cluster
4736	M94	CVN	GX	12:50:55	41:06:49	8.2	4.7		Sb	2	All Year	Jan3-Apr4-May13	All Year	
3351	M95	LEO	GX	10:44:01	11:41:53	9.7	3.9		SBb	3	Sep24-Jul3	Dec6-Mar3-Apr21	Oct2-Jun21	
3368	M96	LEO	GX	10:46:49	11:48:53	9.3	5.8		Sa	3	Sep24-Jul4	Dec6-Mar4-Apr21	Oct3-Jun22	
3587	M97	UMA	PN	11:14:49	55:00:51	11	2.3			3	All Year	Dec12-Mar11-Apr26	All Year	Owl Nebula
4192	M98	COM	GX	12:13:49	14:53:53	10	7.9		Sb	3	Oct8-Aug22	Dec25-Mar26-May6	Oct17-Jul28	
4254	M99	COM	GX	12:18:49	14:24:53	10	4.7		Sc	3	Oct10-Aug24	Dec26-Mar27-May7	Oct18-Jul29	Coma Pinwheel Galaxy
4321	M100	COM	GX	12:22:55	15:48:53	9.4	6.9		Sc	3	Oct9-Aug29	Dec27-Mar28-May8	Oct18-Aug4	
5457	M101	UMA	GX	14:03:12	54:20:46	7.8	19		Sc	2	All Year	Jan23-Apr23-May25	All Year	Pinwheel Galaxy
5866	M102	DRA	GX	15:06:30	55:45:45	10	2.9		S0	3	All Year	Feb14-May9-Jun5	All Year	Spindle Galaxy
581	M103	CAS	OC	01:33:11	60:42:07	7.4	5.8	172		2	All Year	Aug23-Oct15-Jan8	All Year	
4594	M104	VIR	GX	12:40:01	-11:37:00	8.2	6.9		Sbc	2	Nov4-Jul10	Dec31-Apr2-May11	Nov13-Jun25	Sombrero Galaxy
3379	M105	LEO	GX	10:47:49	12:34:53	9.3	3.9		E	3	Sep24-Jul6	Dec6-Mar4-Apr22	Oct2-Jun23	
4258	M106	CVN	GX	12:19:01	47:17:49	8.3	17		Sb	2	All Year	Dec26-Mar27-May7	All Year	
6171	M107	OPH	GC	16:32:29	-13:02:57	9	6.9			3	Dec23-Oct31	Mar26-May31-Jun24	Jan2-Oct12	
3556	M108	UMA	GX	11:11:31	55:39:51	10.1	7.9		Sc	2	All Year	Dec11-Mar10-Apr26	All Year	

## OAOG Challenge - Messier Objects

NGC / IC	Messier	Const.	Type	R.A.	Dec.	Mv	Size	No *	GX Type	Level	Observe	Meridian	Photo	Name
3992	M109	UMA	GX	11:57:37	53:22:50	9.8	7.9		SBb	3	All Year	Dec22-Mar22-May4	All Year	
205	M110	AND	GX	00:40:23	41:41:01	8	16		E	2	All Year	Aug13-Oct1-Dec28	All Year	