

**Binoculars between 20MM and 50MM in diameter**

**Grand Total Objects = 76**

**Easy Messier Objects - Total Objects = 42**

<b>Messier</b>	<b>NGC</b>	<b>R.A.</b>		<b>Dec.</b>		<b>Mag.</b>	<b>Type</b>	<b>Con</b>	<b>Size</b>
2	7089	21	33.5	0	49	7.5	GCl	Aqr	12.9'
3	5272	13	42.2	28	23	7	GCl	CVn	16.2'
4	6121	16	23.6	-26	32	7.5	GCl	Sco	26.3'
5	5904	15	18.6	2	5	7	GCl	Ser	17.4'
6	6405	17	40.1	-32	13	4.5	OCl	Sco	15.0'
7	6475	17	53.9	-34	49	3.5	OCl	Sco	80.0'
8	6523	18	3.1	-24	23	5	C/N	Sgr	60' X 35'
10	6254	16	57.1	-4	6	7.5	GCl	Oph	15.1'
11	6705	18	51.1	-6	16	7	OCl	Sct	14.0'
12	6218	16	47.2	-1	57	8	GCl	Oph	14.5'
13	6205	16	41.7	36	28	7	GCl	Her	16.6'
15	7078	21	30	12	10	7.5	GCl	Peg	12.3'
16	6611	18	18.8	-13	47	6.5	C/N	Ser	7.0'
17	6618	18	20.8	-16	11	7	C/N	Sgr	11.0'
18	6613	18	19.9	-17	8	8	OCl	Sgr	9.0'
22	6656	18	36.4	-29	54	6.5	GCl	Sgr	24.0'
23	6494	17	56.8	-19	1	6	OCl	Sgr	27.0'
24	6603*	18	18.4	-18	25	11.5	OCl	Sgr	5.0'
25	4725	18	28.8	-19	17	4.9	OCl	Sgr	40.0'
27	6853	19	59.6	22	43	7.5	PIN	Vul	480" X 340"
29	6913	20	23.9	38	32	9	OCl	Cyg	7.0'
31	224	0	42.8	41	16	4.5	Gal	And	178'
34	1039	2	42	42	47	6	OCl	Per	35.0'
35	2168	6	8.9	24	20	5.5	OCl	Gem	28.0'
36	1960	5	36.1	34	8	6.5	OCl	Aur	12.0'
37	2099	5	52.4	32	33	6	OCl	Aur	24.0'
38	1912	5	28.7	35	50	7	OCl	Aur	21.0'
39	7092	21	32.2	48	26	5.5	OCl	Cyg	32.0'
41	2287	6	47	-20	44	5	OCl	CMa	38.0'
42	1976	5	35.3	-5	23	5	DfN	Ori	85' X 60'
44	2632	8	40.1	19	59	4	OCl	Cnc	95.0'
45	1432	3	47	24	7	1.4	OCl	Tau	110.0'
46	2437	7	41.8	-14	49	6.5	OCl	Pup	27.0'
47	2422	7	36.6	-14	30	4.5	OCl	Pup	30.0'
48	2548	8	13.8	-5	48	5.5	OCl	Hya	54.0'
50	2323	7	3.2	-8	20	7	OCl	Mon	16.0'
52	7654	23	24.2	61	35	8	OCl	Cas	13.0'
55	6809	19	40	-30	58	7	GCl	Sgr	19.0'
67	2682	8	50.4	11	49	7.5	OCl	Cnc	30.0'
92	6341	17	17.1	43	8	7.5	GCl	Her	11.2'
93	2447	7	44.6	-23	52	6.5	OCl	Pup	22.0'
103	581	1	33.2	60	42	7	OCl	Cas	6.0'

**Tougher Messier Objects - Total Objects = 18**

Messier	NGC	R.A.		Dec.		Mag.	Type	Con	Size
14	6402	17	37.6	-3	15	9.5	GCl	Oph	11.7'
19	6273	17	2.6	-26	16	8.5	GCl	Oph	13.5'
28	6626	18	24.5	-24	52	8.5	GCl	Sgr	11.2'
30	7099	21	40.4	-23	11	8.5	GCl	Cap	11.0'
33	598	1	33.9	30	40	7	Gal	Tri	73' X 45'
40	WIN4	12	20	58	22	9	Dbl	UMa	49"
49	4472	12	29.8	8	1	10	Gal	Vir	9' X 7.5'
53	5024	13	12.9	18	10	8.5	GCl	Com	12.6'
62	6266	17	1.2	-30	7	8	GCl	Oph	14.1'
63	5055	13	15.8	42	2	8.5	Gal	CVn	10' X 6'
64	4826	12	56.7	21	41	9	Gal	Com	9.3' X 5.4'
78	2068	5	46.8	0	4	8	DfN	Ori	8' X 6'
79	1904	5	24.5	-24	33	8.5	GCl	Lep	8.7'
80	6093	16	17	-22	59	8.5	GCl	Sco	8.9'
81	3031	9	55.6	69	4	8.5	Gal	UMa	21' X 10'
82	3034	9	55.9	69	41	9.5	Gal	UMa	9' X 4'
83	5236	13	37.1	-29	52	8.5	Gal	Hya	11' X 10'
94	4736	12	50.9	41	8	9.5	Gal	CVn	7' X 3'

**Challenge Messier Objects - Total Objects = 16**

Messier	NGC	R.A.		Dec.		Mag.	Type	Con	Size
1	1952	5	34.5	22	1	9	PIN	Tau	6' X 4'
9	6333	17	19.2	-18	31	9	GCl	Oph	9.3'
26	6694	18	45.2	-9	24	9.5	OCl	Sct	15.0'
32	221	0	42.8	40	52	10	Gal	And	8' X 6'
51	5194	13	30	47	11	8	Gal	CVn	11' X 7'
54	6715	18	55.1	-30	29	8.5	GCl	Sgr	9.1'
56	6779	19	16.6	30	11	9.5	GCl	Lyr	7.1'
65	3623	11	18.9	13	6	10.5	Gal	Leo	8' X 1.5'
66	3627	11	20.2	13	0	10	Gal	Leo	8' X 2.5'
68	4590	12	39.5	-26	45	9	GCl	Hya	12.0'
71	6838	19	53.8	18	47	8.5	GCl	Sge	7.2'
75	6864	20	6.1	-21	55	9.5	GCl	Sgr	6.0'
97	3587	11	14.8	55	1	12	PIN	UMa	202" X 196"
101	5457	14	3.3	54	22	8.5	Gal	UMa	22.0'
104	4594	12	39.9	-11	37	9.5	Gal	Vir	9' X 4'
106	4258	12	18.9	47	19	9.5	Gal	CVn	19' X 8'

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