

<b>2 in the View</b>							
Magnitude, RA and Dec are from the program "Megastar"							
Separation using Megastar RA and Dec, calculated by <a href="http://www.stargazing.net/mas/angsep.html">http://www.stargazing.net/mas/angsep.html</a>							
Separation calculated on <b>brightest two</b> in group							
Atlas page refers to "Sky and Telescopes Pocket Star Atlas"							
	<b>Constellation</b>	<b>Magnitude</b>	<b>NGC</b>	<b>degrees</b>	<b>RA</b>	<b>Dec</b>	<b>Type</b>
				<b>Separation</b>			
1	Cassiopeia	9.4 9.1 8.5	133 146 King 14	0.19	00 31m 18s	63 21' 12"	OC/OC
2	Cassiopeia	10.5 10.1	147 185	0.97	00h 33m 12s	48 30' 28"	gal/gal
3	Andromeda	4.4 9.0 8.9	M31 M32 M110	0.61	00h 42m 44s	41 16' 08"	galaxies
4	Cassiopeia	6.4 7/10.2 8.8	457, Phi Cass, 436	0.70	01h 19m 33s	58 17' 24"	OC/dbl star/OC ET Phi Cas is a triple star that is the brighter eye of ET (mag 5,12,7)
5	Cetus	11.4 11.8 12.9 12.5	584 596 600 615	0.41	01h 31m 21s	-06 52' 07"	galaxies
6	Triangulum	11.5 12.1	672 IC1727	0.14	01h 47m 31s	27 19' 39"	gal/gal
7	Aries	11.9 11.4	680 691	0.30	01h 50m 42s	21 45' 35"	gal/gal
8	Perseus	5.3 6.1	869 884	0.44	02h 19m 04s	57 08' 06"	OC/OC Double Cluster
9	Andromeda	10.8 12.1	891 910	0.75	02h 25m 26s	41 49' 27"	gal/gal
10	Cetus	11.6 10.4 12.9	1042 1052 1035	0.25	02h 40m 24s	-08 26' 02"	galaxies
11	Perseus	10.4 11.8	1023 IC239	0.77	02h 40m 24s	39 03' 46"	gal/gal
12	Cetus	9.6 11.4	M77 1055	0.51	02h 42m 40s	00 00' 48"	gal/gal
13	Eridanus	12.2 11.3	1325 1332	0.48	03h 26m 17s	-21 20' 09"	gal/gal
14	Eridanus	10.9 10.7 12.5 12.0 12.7	1400 1407 1383 1393 1394	0.19	03h 39m 31s	-18 41' 17"	galaxies
15	Taurus	7.0 7.7	1807 1817	0.44	05h 10m 46s	16 30' 48"	OC/OC
16	Auriga	6.4 8.2	M38 1907	0.55	05h 28m 43s	35 51' 18"	OC/OC
17	Orion	3.0 9.0 5/5/6.8/6.7	M42 M43 Trapezium	0.07	05h 35m 00s	-5 25' 00"	neb/neb/OC Orion Nebula
18	Gemini	5.1 8.6 8.4	M35 2158 IC2157	1.00	06h 09m 00s	24 21' 00"	OC/OC/OC
19	Canis Major	12.6 11.6	IC2163 2207	0.03	06h 16m 29s	-21 22' 34"	gal/gal
20	Monoceros	7.7 4.8	2252 2244	0.73	06h 32m 19s	04 51' 24"	OC/OC
21	Monoceros	7.3 9.1	2251 2254	0.75	06h 34m 39s	08 22' 00"	OC/OC
22	Monoceros	7.2 6.7	2335 2343	0.67	07h 06m 50s	-10 01' 42"	OC/OC
23	Gemini	8 11.3	2395 PK205+14.1	0.58	07h 27m 13s	13 36' 30"	OC/PN
24	Cepheus	11.9 12.1	2276 2300	0.11	07h 27m 17s	85 45' 20"	gal/gal
25	Puppis	10.1 6.1	2438 M46	0.08	07h 41m 47s	-14 48' 36"	PN/OC PN is inside OC
26	Camelopardalis	11 11.8	2655 2715	0.65	08h 55m 39s	78 13' 28"	gal/gal
27	Ursa Major	13.4 12.0 10.8	2726 2742 2768	0.67	09h 04m 57s	59 55' 58"	gal/gal
28	Ursa Major	11.2 12.2	2985 3027	0.41	09h 50m 22s	72 16' 47"	gal/gal
29	Ursa Major	7.9 9.3 9.9	M81 M82 3077	0.62	09h 55m 36s	69 03' 49"	galaxies
30	Sextans	11.3 11.1	3166 3169	0.13	10h 13m 45s	03 25' 31"	gal/gal
31	Leo	13.0 13.4 12.1 11.8	3185 3187 3190 3193	0.10	10h 17m 39s	21 41' 13"	galaxies
32	Leo	11.4 10.3 12.8	3227 3226 3222	0.04	10h 23m 27s	19 53' 53"	galaxies
33	Leo	10.5 10.1	M95 M96	0.69	10h 43m 58s	11 42' 14"	gal/gal
34	Leo	12.1 11.2	3367 3377	0.36	10h 46m 35s	13 45' 07"	gal/gal need power as these are small
35	Leo	10.2 10.9 12.4	M105 3384 3389	0.12	10h 47m 50s	12 34' 55"	galaxies
36	Leo Minor	12.0 11.5	3395 3430	0.50	10h 49m 50s	32 58' 58"	gal/gal
37	Crater	10.9 11.4	3511 3513	0.18	11h 03m 23s	-23 05' 12"	gal/gal
38	Leo	12.3 9.9 10.7 12	3605 3607 3608 3599	0.10	11h 16m 47s	18 01' 01"	galaxies

39	Ursa Major	11.8 12.5 13.9	3613 3619 3625	0.26	11h 18m 36s	58 00' 01"	galaxies	
40	Leo	10.3 9.7 10.3	M65 M66 3628	0.34	11h 18m 55s	13 05' 33"	galaxies	Leo triplet
41	Leo	11.9 12.0 11.9 12.6	3681 3684 3686 3691	0.47	11h 26m 30s	16 51' 46"	galaxies	
42	Ursa Major	10.7 11.4	3718 3729	0.19	11h 32m 35s	53 04' 05"	gal/gal	
43	Ursa Major	12.9 11.7 12.1	3733 3738 3756	0.27	11h 35m 02s	54 51' 08"	gal/gal	
44	Ursa Major	11.2 13.9 13.5 13.2	3893 3896 3906 3928	0.52	11h 48m 38s	48 42' 38"	galaxies	
45	Hydra	11.8 10.8	3904 3923	0.66	11h 49m 13s	-29 16' 35"	gal/gal	
46	Ursa Major	13.0 11.8 13.4 11.6	3972 3982 3990 3998	0.39	11h 55m 46s	55 19' 07"	galaxies	
47	Ursa Major	13.6 13.5 13.3	3986 3991 3994	0.06	11h 56m 44s	32 01' 20"	galaxies	Challenge Objects!
48	Ursa Major	11.6 11.9	4036 4041	0.26	12h 01m 28s	61 53' 47"	gal/gal	
49	Corvus	10.9 11.1	4038 4039	0.02	12h 01m 53s	-18 52' 02"	gal/gal	Antennae
50	Ursa Major	13.0 11.2 12.2	4085 4088 4157	0.88	12h 05m 23s	50 21' 14"	galaxies	
51	Canes Venatici	9.1 11.1 12.5	M106 4217 4248	0.57	12h 18m 57s	47 18' 31"	galaxies	
52	Virgo	11.8 10.4, 12.8, 12.8, 13.1, 11.9, 13.4, 12.3	4260 4261 4264 4268 4270 4273 4277 4281	0.27	12h 19m 22s	06 05' 55"	galaxies	multiple galaxies here - more than listed
53	Coma Berenices	11.3 11.1 12.3	4274 4278 4245	0.34	12h 19m 51s	29 36' 51"	galaxies	4314 m11.4 is nearby
54	Virgo	11.3 11.6	4298 4302	0.04	12h 21m 33s	14 36' 11"	gal/gal	
55	Virgo	12.1 11.9	4340 4350	0.10	12h 23m 35s	16 43' 22"	gal/gal	
56	Virgo	10.1, 9.8, 11.7, 11.0, 12.0, 11.1, 11.2, 11.4	M84 M86 4435 4438 4458 4461 4473 4477	0.43	12h 25m 04s	12 53' 15"	galaxies	Markarians chain - 8 galaxies
57	Virgo	9.1 10.8	M85 4394	0.13	12h 25m 23s	18 11' 31"	gal/gal	
58	Virgo	9.4 12.1 12.5 13.0 12.2 12.6	M49 4434 4464 4470 4488 4492	0.56	12h 29m 47s	07 59' 58"	galaxies	
59	Canes Venatici	12.3 10.2	4485 4490	0.06	12h 30m 31s	41 42' 00"	gal/gal	
60	Virgo	9.6 13.0 12.4 13.5 13.3	M87 4476 4478 4486A 4486B	0.15	12h 30m 32s	12 29' 26"	gal/gal	
61	Virgo	11.0 11.8	M91 4571	0.46	12h 35m 26s	14 29' 49"	gal/gal	need magnification
62	Virgo	10.7 10.3 12.4 12.6	M89 M90 4531 4550	0.39	12h 35m 40s	12 33' 25"	galaxies	
63	Virgo	9.6 12.1 12.1 11.7	M58 4564 4567 4568	0.65	12h 37m 44s	11 49' 11"	gal/gal	Siamese twins = 4567+4568
64	Virgo	11.4 12.0	4596 4608	0.32	12h 40m 27s	10 08' 57"	gal/gal	
65	Virgo	10.6 9.8 12.1 11.9	M59 M60 4638 4647	0.41	12h 42m 02s	11 38' 52"	galaxies	
66	Canes Venatici	12.5 9.8 11.0 10.5	4627 4631 4656 4657	0.54	12h 42m 05s	32 32' 18"	galaxies	
67	Virgo	11.5 10.2	4754 4762	0.18	12h 52m 18s	11 18' 49"	gal/gal	
68	Coma Berenices	7.7 9.0	M53 5053	0.96	13h 12m 55s	18 10' 09"	GC/GC	
69	Virgo	12.8 12.2 11.8 13.0 10.8	5035 5037 5044 5049 5054	0.45	13h 14m 49s	16 29' 32"	galaxies	
70	Ursa Major	9.0 10.5	M51 5195	0.08	13h 29m 53s	47 11' 48"	gal/gal	Whirlpool
71	Canes Venatici	11.3 10.9 11.3 10.5	5350 5353 5354 5371	0.45	13h 53m 22s	40 21' 49"	galaxies	
72	Virgo	13.4 13.4 11.1 11.2	5338 5356 5363 5364	0.24	13h 53m 26s	05 12' 29"	gal/gal	
73	Ursa Major	8.3 12.4 11.3 11.4 12.8	M101 5473 5474 5485 5422	0.74	14h 03m 13s	54 20' 55"	galaxies	should be able to easily do two of the three but most likely not all
74	Virgo	12.4 11.5	5560 5566	0.09	14h 20m 04s	03 59' 33"	gal/gal	requires a larger scope to see both
75	Bootes	12.2 11.9 12.4 12.9	IC1029 5676 5660 5673	0.45	14h 32m 27s	49 54' 17"	gal/gal	
76	Virgo	11.9 11.3	5740 5746	0.30	14h 44m 24s	01 40' 48"	gal/gal	need magnification
77	Virgo	13.7 12.5 10.0 10.7	5839 5845 5846 5850	0.17	15h 05m 27s	01 38' 04"	galaxies	
78	Draco	13.9 12 11.9	5981 5982 5985	0.12	15h 38m 40s	59 21' 21"	gal/gal	
79	Scorpius	4.9/7.3 8.5/11.0	Xi Scorpii Struve1999	0.08	16h 04m 22s	-11 22' 23"	dbl star/dbl star	
80	Scorpius	5.4 9.0	M4 6144	0.96	16h 23m 36s	-26 31' 31"	GC/GC	
81	Hercules	5.8 12.2	M13 6207	0.46	16h 41m 41s	36 27' 37"	GC /gal	
82	Scorpius	4.2 5.7	M6 6416	0.85	17h 40m 17s	-32 16' 00"	OC/OC	
83	Hercules	3.4 9.8	86 Mu Herculi (triple star)	0.01	17h 44m 57s	27 20' 05"	triple star	9.8 is a double star very hard to split- two red dwarfs that appear blue
84	Scorpius	3.3 8.8 10.2	M7 Cr355 6453	0.74	17h 53m 54s	-34 47' 00"	OC/OC/GC	

85	Sagittarius	6.3 5.9	M20 M21	0.64	18h 02m 31s	-23 01' 00"	OC/OC		
86	Sagittarius	9.9 9.6	6522 6528	0.27	18h 03m 35s	-30 02' 02"	GC/GC		
87	Sagittarius	5.0 4.6	6523(M8) 6530	0.11	18h 04m 03s	-24 18' 00"	neb/OC	Lagoon	
88	Sagittarius	8.6 10.0	6568 6583	1.09	18h 12m 48s	-21 35' 00"	OC/OC		
89	Sagittarius	6.0 6.9	M17 M18	0.96	18h 21m 09s	-16 11' 00"	neb/OC	Omega Nebula	
90	Scutum	7.8 8.6	6664 Cr387	0.86	18h 36m 31s	-08 11' 00"	OC/OC		
91	Corona Australis	6.8 7.9	6723 6729	0.57	18h 59m 33s	-36 37' 54"	GC/BN		
92	Aquila	7.5 10.6	6755 6756	0.52	19h 07m 40s	04 14' 00"	OC/OC		
93	Velpecula	3.6 8.8	Cr399 6802	1.04	19h 26m 12s	20 06' 00"	OC/OC	6802 is on the end of the coathanger	
94	Sagittarius	9.9 9.3	6818 6822	0.69	19h 43m 58s	-14 09' 10"	PN/gal	little gem Barnards galaxy	
95	Cygnus	9.8 6.0/6.3	6826 cygnii 16	0.47	19h 44m 48s	50 31' 31"	PN/dbl star	Blinking planetary and double star	
96	Sagitta	8.4 7.7	M71 Harvard 20	0.46	19h 53m 46s	18 46' 42"	OC/OC		
97	Velpecula	8.1 6.0	6882 6885(inside 6882)	0.01	20h 12m 00s	26 29' 00"	OC/OC	open cluster inside another open cluster	
98	Cepheus	7.8 9.6	6939 6946	0.65	20h 31m 32s	60 39' 14"	OC/gal		
99	Cygnus	na 4.2/8.7	6960 cygnii 52	0.05	20h 45m 54s	30 43' 00"	neb/dbl star	Half of the Veil and double star Cygnii 52	
100	Cepheus	11.5 9.3	7129 7142	0.45	21h 42m 00s	66 05' 00"	OC/OC		
101	Pegasus	13.6 13.9 13.1 13.2	7317 7318B 7319 7320	0.03	22h 35m 52s	33 56' 43"	galaxies	Stephans Quintet	
102	Pegasus	12 13.1	7332 7339	0.09	22h 37m 25s	23 47' 54"	gal/gal	need magnification to see these in a less than 16" scope	
103	Pegasus	12.0 12.3	7385 7386	0.09	22h 49m 55s	11 36' 31"	gal/gal		
104	Lacerta	9.2 9.1	7245 IC1442	0.33	22h15m18s	54 20' 00"	OC/OC		
105	Pegasus	11.6 11.8 13.8 12.6	7448 7454 7463 7465	0.48	23h 00m 04s	15 58' 50"	galaxies		
106	Sculptor	11.4 11.4	7507 7513	0.30	23h 12m 08s	-28 32' 21"	gal/gal		
107	Pegasus	12.5 11.0 11.1	7611 7619 7626	0.12	23h 20m 14s	08 12' 23"	galaxies	magnification required	
108	Cassiopeia	6.9 10	M52 7635	0.64	23h 24m 50s	61 35' 51"	OC/neb	bubble nebula	
109	Cassiopeia	9.4 8.5	7788 7790	0.28	23h 56m 44s	61 23' 53"	OC/OC		
110	Any Planet and the Moon								
111	Any two Planets								
112	Any Planet and a NGC/IC								
113	Any Comet and a NGC/IC								
114	Any two NCG/IC not listed above								
Items numbers 110 to 114 can be used multiple times with different objects, for a maximum of 15 total.									