

MESSIER MARATHON SEARCH ORDER

| 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 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