

# MESSIER COMMENTS

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1. What type of object is the Messier?  
Galaxy (Spiral, Elliptical, Irregular, Barred, Peculiar)  
Nebula (Dark, Emission, Reflection or Planetary)  
Cluster (Open, Globular)

## **GALAXY**

Spiral: a galaxy with gravitational bound stars with rotational symmetry and spiral arm structure.

Elliptical: galaxy with gravitational bound stars with rotational symmetry and no spiral arm structure.

Barred Spiral: a spiral galaxy with arms protruding from the ends of the galaxy.

Peculiar: galaxies that do not fit the other classifications.

Irregular: a galaxy without spiral/rotational symmetry with type I stars and abundant gas/dust.



## **NEBULA**

Dark N: a cloud of dust obscuring distant star light and appears as a dark patch (absorption).

Emission /Diffuse N: a bright nebula of ionized gas or inter-stellar dust with an emission line spectrum.

Planetary N: a thick shell of gas moving out from an extremely hot star/nova.

Reflection N: inter-stellar gas or dust illuminated by a near by star.

## **CLUSTER**

Globular: a spherical symmetrical packed group of stars containing up to a million stars.

Open: a loose cluster of stars that contains from a few to a few thousand stars.

2. Is there any appearance of color? (brightness)
3. Can any structural detail be resolved? (shape, size)
4. Can individual stars be resolved? (rich/poor in stars, loosely/highly compressed)
5. Can any central or illuminating star be seen? (DBL/Binary stars)
6. Are any absorption areas present?
7. How large does the object appear.
8. Are there any features or additional comments to be made.
9. Does the object have a particular name?
10. What are your thoughts about the object?