The **Andromeda Galaxy** (IPA: [/ænˈdrɒmɪdə/](https://en.wikipedia.org/wiki/Help:IPA/English)), also known as **Messier 31**, **M31**, or **NGC 224** and originally the **Andromeda Nebula** (see below), is a [barred spiral galaxy](https://en.wikipedia.org/wiki/Barred_spiral_galaxy) approximately 2.5 million [light-years](https://en.wikipedia.org/wiki/Light-year) (770 [kiloparsecs](https://en.wikipedia.org/wiki/Parsec" \l "Parsecs_and_kiloparsecs" \o "Parsec)) from Earth and the nearest major galaxy to the [Milky Way](https://en.wikipedia.org/wiki/Milky_Way).[[4]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-Ribas2005-4) The galaxy's name stems from the area of Earth's sky in which it appears, the [constellation of Andromeda](https://en.wikipedia.org/wiki/Andromeda_(constellation)), which itself is named after the [Ethiopian (or Phoenician) princess](https://en.wikipedia.org/wiki/Andromeda_(mythology)) who was the wife of [Perseus](https://en.wikipedia.org/wiki/Perseus) in Greek mythology.

The [virial mass](https://en.wikipedia.org/wiki/Virial_mass" \o "Virial mass) of the Andromeda Galaxy is of the same order of magnitude as that of the Milky Way, at 1 [trillion](https://en.wikipedia.org/wiki/1000000000000_(number)) [solar masses](https://en.wikipedia.org/wiki/Solar_mass) (2.0×1042 [kilograms](https://en.wikipedia.org/wiki/Kilogram)). The mass of either galaxy is difficult to estimate with any accuracy, but it was long thought that the Andromeda Galaxy is more massive than the Milky Way by a margin of some 25% to 50%. This has been called into question by a 2018 study that cited a lower estimate on the mass of the Andromeda Galaxy,[[12]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-Kafle2018-14) combined with preliminary reports on a 2019 study estimating a higher mass of the Milky Way.[[13]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-15)[[14]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-16) The Andromeda Galaxy has a diameter of about 220,000 [ly](https://en.wikipedia.org/wiki/Light-year" \o "Light-year) (67 [kpc](https://en.wikipedia.org/wiki/Parsec" \l "Parsecs_and_kiloparsecs" \o "Parsec)), making it the largest member of the [Local Group](https://en.wikipedia.org/wiki/Local_Group) in terms of extension, if not mass.[[*citation needed*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)]

The number of stars contained in the Andromeda Galaxy is estimated at one trillion (1×1012), or roughly twice the number estimated for the Milky Way.[[15]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-Jorge_Pe%C3%B1arrubia2014-17)[[*needs update*](https://en.wikipedia.org/wiki/Wikipedia:Manual_of_Style/Dates_and_numbers#Chronological_items)]

The Milky Way and Andromeda galaxies are [expected to collide](https://en.wikipedia.org/wiki/Andromeda%E2%80%93Milky_Way_collision) in around 4.5 billion years,[[16]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-18)[[17]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-19) merging to form a giant [elliptical galaxy](https://en.wikipedia.org/wiki/Elliptical_galaxy)[[18]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-milky-way-collide-20) or a large [lenticular galaxy](https://en.wikipedia.org/wiki/Lenticular_galaxy).[[19]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-Ueda2014-21) With an [apparent magnitude](https://en.wikipedia.org/wiki/Apparent_magnitude) of 3.4, the Andromeda Galaxy is among the brightest of the [Messier objects](https://en.wikipedia.org/wiki/Messier_object),[[20]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-Frommert_&_Kronberg_2007-22) making it visible to the [naked eye](https://en.wikipedia.org/wiki/Naked_eye) from Earth on moonless nights,[[21]](https://en.wikipedia.org/wiki/Andromeda_Galaxy#cite_note-23) even when viewed from areas with

https://en.wikipedia.org/wiki/Andromeda\_Galaxy

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