

Gemini

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Gemini

Gemini the constellation is a fixed pattern of stars; [Gemini the zodiac sign](#) is a moving 30-degree slice of the calendar that has drifted about 24 degrees away from it. The sign runs late May into June; the Sun doesn't actually reach these stars until nearly the solstice, and spends most of tropical Gemini in front of Taurus instead.

From 40°N, Gemini is a winter-into-spring constellation: two long, nearly parallel lines of stars running up from the Milky Way toward a bright, close pair at the top — **Castor** and **Pollux**, the twins the figure is named for. It is one of the few constellations whose basic shape is genuinely obvious once you've seen it.

Finding it

Two reliable routes in. Find Orion's Belt and the Hyades V of Taurus, then look further east (left, for an observer facing south) past both — Castor and Pollux sit at the far end. Or draw an imaginary line from the Pleiades through Regulus in Leo; it crosses Gemini roughly at its midpoint, just below the twins themselves.

Best seen around 9 p.m. in February, visible from roughly December through April in the evening sky. Not circumpolar from 40°N — it clears the Sun's glare by late autumn and is gone into evening twilight by midsummer.

The stars

Star	RA	Dec	Mag	Spectral type	Distance	Name
Castor (? Gem)	7h 34 .6m	+31° 53.4'	1.58	A1 V + A2 V + M dwarfs	~51 ly	Greek, one of the twin sons of Leda; mortal in the myth, six stars in reality.
Pollux (? Gem)	7h 45 .3m	+28° 01.8'	1.16	K0 III (orange giant)	~34 ly	Greek, the immortal twin; the closest giant star to the Sun.
Alhena (? Gem)	6h 37 .7m	+16° 24.0'	1.92	A1 IV + G	~105 ly	Arabic <i>al-han?ah</i> , "the brand" — as on a camel's neck.
Tejat Posterior (? Gem)	6h 22 .9m	+22° 30.6'	2.87	M3 III (red giant)	~230 ly	Marks the western foot of the twins.
Mebstuta (? Gem)	6h 43 .9m	+25° 07.8'	2.98	G8 Ib (yellow supergiant)	~900 ly	Arabic, "the outstretched paw."
Mekbuda (? Gem)	7h 04 .1m	+20° 34.2'	3.79 (var.)	G0–F7 Ib	—	A classical Cepheid: it swells and dims on a 10.2-day cycle, between about magnitude 3.6 and 4.2 — one of the stars whose regular pulsation calibrated the cosmic distance scale.
Wasat (? Gem)	7h 20 .1m	+21° 58.8'	3.53	F0 IV + K binary	~59 ly	Arabic <i>al-wasat</i> , "the middle." Clyde Tombaugh discovered Pluto on photographic plates of the sky right beside this star in 1930.
Alzirr (? Gem)	6h 45 .3m	+12° 54.0'	3.35	F5 IV	—	Arabic, "the button."

Propus (? Gem)	6h 14 .9m	+22° 30.6'	3.28 (var.)	M3 III (red giant)	~380 ly	Arabic-Greek hybrid, "the forward foot." A semi-regular variable, drifting between about magnitude 3.1 and 3.9 over months as the swollen giant pulses.
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Myth and history

The Babylonian Great Twins (Lugal-irra and Meslamta-ea, gatekeepers of the underworld) and the Greco-Roman Dioscuri, with their real Spartan and Roman cult, belong to [the zodiac sign's page](#). This page adds a tradition that arrived at a strikingly similar idea from a different direction.

In Chinese astronomy, Castor, Pollux, and nearby ? Geminorum form **Beihe**, the "Northern River," facing **Nanhe**, the "Southern River," across the ecliptic in Canis Minor. Together the two river-garrisons guard the "Heavenly Gate," the corridor the Sun, Moon, and planets pass through — Beihe itself is also called the Gate of Yin. It is worth noticing, without claiming any contact between the traditions: Mesopotamia's twins guard the door to the underworld, and China's twin river-stars guard the gate the sky's wanderers pass through. Two unrelated cultures independently cast this same patch of stars as gatekeepers.

Deep sky

M35 is a large, bright open cluster near Castor's foot, easily resolved into individual stars in binoculars, about 2,800 light-years away and discovered in 1745. **NGC 2392**, the Eskimo (or Clown Face) Nebula, is a planetary nebula around 4,000 light-years out — a small, telescope-only ring of gas thrown off by a dying Sun-like star, magnitude 9.2.

The Geminids

Gemini gives its name to the year's most reliable meteor shower, peaking every year around 13–14 December. It is also the one clearly identified major shower whose parent isn't a comet: it's **3200 Phaethon**, an asteroid on a comet-like orbit that swings within 21 million km of the Sun. Phaethon was found by the infrared satellite IRAS in 1983 and doesn't grow a proper tail; its debris is denser than typical cometary dust, closer to rock than ice, which has left it labelled informally a "rock comet." Astronomers still don't fully agree on the mechanism shedding the debris that produces the shower.

Key dates

Date	Event
13 March 1781	William Herschel discovers Uranus while sweeping the stars near ? Geminorum, at first taking it for a comet or nebula.
18 February 1930	Clyde Tombaugh discovers Pluto on photographic plates of the field around ? Geminorum (Wasat).
1930	The IAU adopts Delporte's modern constellation boundaries.
11 October 1983	IRAS discovers 3200 Phaethon, later identified as the Geminids' parent body.
2006	Radial-velocity measurements confirm a planet, later named Thestias, orbiting Pollux — the brightest star known at the time to host a confirmed exoplanet.

Related

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