

A Miscalculation: Abridged

A Digest of the Facts behind the Scope of Calculations for Determining the Islamic Months

How do we, as Muslims, establish the commencement and completion of our Islamic months? For over fourteen centuries, the Ummah across continents consistently established lunar months through physical sighting of the crescent or by completion of thirty days. This was in accordance with the Qur'an, Sunnah, and scholarly consensus (Ijma'). Altering this system represents a departure from the established tradition of moonsighting deeply rooted in the Sunnah of the Prophet ﷺ. The Islamic Hijri calendar is a lunar calendar, as Allah ﷻ created the moon for the purpose of telling time. The Qur'an (10:5) mentions:

*“He is the One who made the sun a shining radiance and **the moon a light, determining phases for it so that you might know the number of years and how to calculate time.** Allah did not create all these without a true purpose; He explains His signs to those who understand.”*

Imam Fakhr al-Deen al-Razi al-Shafi' ﷺ explains this Ayah, saying: “Verily the months that are reliable in the Shari'ah are pending upon sighting the crescents.” (*al-Tafsir al-Kabir* 17:209)

Imam ibn Rushd al-Maliki ﷺ says: “The scholars are unanimous (Ijma') that the Arabic month is either 29 or 30 days, and that the determination of the month of Ramadan *can only be resolved through sighting*. This is because of his saying, ‘Fast through its sighting, and break (fasting) through its sighting.’ (*Bidayah al-Mujtahid* 2:46)

Imam Al-Halwani al-Hanafi ﷺ says, “The condition of obligating the (month of) fasting is the sighting (*al-Ru'yah*). Their (astronomers') statements are not relied upon.” (*Radd al-Muhtar* 3:409)

Imam al-Ghazali al-Shafi' ﷺ writes on precursory acts (*Wajibat*) of fasting, “Firstly, one must be attentive to the beginnings of Ramadan, which is through the sighting of the crescent.” (*Ihya Ulum al-Deen* 2:103)

Imam ibn 'Abidin al-Shami al-Hanafi ﷺ writes, “**And there is no regard given to the opinions of the astronomers:** In the obligation of fasting on the general people, and rather, it is stated in *al-Mi'raj*: ‘There is no regard towards their (astronomers') speech by consensus (Ijma'), and the astronomer is not allowed to act upon his own calculations.’” (*Radd al-Muhtar* 3:409)

In Surah al-Baqarah (2:185), “Whoever witnesses the month must fast,” and in (2:189), crescents are described as markers of time for people and Hajj. Lexical and exegetical analysis of the word “*shahida*” demonstrates that it implies physical witnessing. Major mufasssiron (exegetes) such as

Imam al-Qurtubi and Imam al-Razi رحمهما الله interpreted these verses as establishing *ru'yah* (physical sighting) as the operative method.

The Hadith is unequivocal: “Fast when you see it and break when you see it; if it is obscured, complete thirty days.” This wording is repeated in multiple narrations in Sahih al-Bukhari and Sahih Muslim. The term *ru'yah* in Arabic denotes sensory sight. Where narrations use the word “*faqdurū*,” parallel reports clarify its meaning as “complete thirty days,” not “calculate astronomically.” Thus, textual hermeneutics resolves ambiguity in favor of completion, not computation.

Moreover, the hadith “We are an unlettered nation; we neither write nor calculate” does not establish being unlettered as the legal cause for avoiding calculations. In fact, many Sahabah رضي الله عنهم knew writing and arithmetic, yet the ruling remained unchanged. Scholars explain that this statement reflects a *hikmah* (wisdom), not the ‘*illah* (legal cause). The Shari‘ah intentionally tied fasting to a universally accessible act, (i.e., physical sighting), rather than specialized technical knowledge.

A small number of later scholars discussed calculations in restricted circumstances, typically for private reliance or in cases of cloud cover. However, authorities such as Hafiz Ibn Hajar, Imam al-Baji, and Ibn Taymiyyah رحمهم الله regarded these opinions as anomalous and contrary to consensus—and anomalous opinions that contravene established consensus are weightless. It should also be noted that the sporadic few who even considered the validity of using astronomical calculations when moon sighting is impossible, never suggested a replacement of the method taught and practiced by the Rasulullah صلى الله عليه وسلم.

Moreover, Shaikh Bin Baz رحمهما الله, the former Grand Mufti of Saudi Arabia, is quoted in his *Majmu Fatawa* (15:128) to have written, that the one who relies on calculations for moonsighting is seeking to correct Allah and His Messenger صلى الله عليه وسلم (استدراك على الله). Allah عز وجل, in His infinite knowledge, was always aware that advanced calculations and modern means of communication would emerge. This establishes that the divine guidance provided in the early days was sufficient for all times, including our present era, despite the presumed advancements in precision.

The analogy between prayer timetables and lunar calculations is flawed. Prayer times are linked to the sun’s position, an ongoing, measurable phenomenon, whereas Ramadan is explicitly linked to the moon’s sighting, not the moon’s position or existence above the horizon. Imam al-Qarafi رحمهما الله explains that prayer is conditioned on the entrance of time (which may be known by any reliable means), while fasting is conditioned specifically on *ru'yah* or completion of thirty days. The two are juristically disanalogous.

Astronomically, while conjunctions and lunar motions are calculable to a degree of certainty, crescent visibility can only be estimated, due to the varying atmospheric, geometric, and physiological conditions. Calculations may assist in assessing possibility or rejecting impossible claims, but they cannot substitute for actual sighting. The United States Naval Observatory states, “Although the date and time of each New Moon can be computed exactly, the visibility of the lunar crescent as a function of the Moon’s “age”—the time counted from New Moon—depends upon many factors and cannot be predicted with certainty.” Thus, calculations serve an auxiliary, not determinative, role.

The sighting of the moon is a matter related to worship (*amr ta'abbudi*), just as Wudu preceding Salah is a worship-related matter. Thus, no matter how advanced the world may become in purification methods, it is still required to make Wudu before Salah, and where Wudu is not possible, *tayammum*. Similarly, determining the Islamic months by the sighting of the moon, and when unsuccessful, completing thirty days, is a directive from Allah, and such directives are immutable.

The objective of Shari'ah in this matter is not mathematical precision but compliance with the divine directive. If sighting efforts are sincere yet mistaken, there is no sin. This is as opposed to disregarding the explicit directive in favor of mathematical precision. Like *tayammum* when water is unavailable, the obligation is tied to human capacity, not metaphysical certainty.

Finally, appeals to global unity do not override textual directives. Some claim that we should have Ramadan and Eid on the same dates globally to demonstrate that the Muslims are united. This is an attractive but unfounded concern. Consider the following:

1. **Time Differences:** It is impossible to start and end Ramadan on the same dates throughout the world because of the vast time differences between the different countries of the world. Even if the date is the same, the day-night differences make it impossible to achieve the proposed unity, even superficially.
2. **Masjid Prayer Timings:** It is very interesting to note that although we have different timings in our various Masajid for the daily prayers, we never assert this to be against unity.
3. **Big Demand:** To assume that the entire world will calculate for determining the calendar is a mighty demand. We find countries that stick to their own sighting, and will continue to do so. We also find countries that claim a sighting on a day when calculations deem it impossible. To assert that calculating the crescent will somehow unify everyone is an impetuous leap of faith.

The bigger question is whether getting everyone to perform Eid and Ramadan on the same day even constitutes real unity to begin with? We have Muslims debating on the very principles of

our religion, tearing apart the fabric that holds the religion together. Muslims are facing doubts and following their own fancies, and yet when we find explicit recourse for a basic issue in the Hadith of the Messenger of Allah ﷺ, how can we turn to ‘modern’ solutions. The Messenger ﷺ told us that at the end of times, we must hold onto the Book of Allah and the Sunnah, and as Muslims, our unity lies in these two foundations. Thus, unity is achieved through adherence to divine instruction, not by altering the complete and perennial Islamic teachings. The cumulative evidence from Qur’an, Sunnah, consensus, and juristic methodology establishes that Islamic lunar months begin through crescent sighting or completion of thirty days. Replacing this with calculations constitutes a departure from the established Islamic tradition.

اللَّهُمَّ أَرِنَا الْحَقَّ حَقًّا وَارْزُقْنَا اتِّبَاعَهُ وَأَرِنَا الْبَاطِلَ بَاطِلًا وَارْزُقْنَا اجْتِنَابَهُ