

### Welcome the first quarter moon

**By Vernon Whetstone**

*Amateur Astronomer*

The last few days of this week will be a good opportunity to use our old friend, the moon, to help us find some astronomical objects.

Let's start with Wednesday, April 17.

The moon is high in the southwest just to the left of Gemini, the Twins (more about Gemini later).

It will be almost at first quarter (first quarter is April 18), and it will look like half of its face is in light and half is in dark.

Perhaps this would be a good place to insert a recent question from the mailbag; "Why are the different moon phases called quarters?" Good question.

The lunar month—the time it takes to completely go through all its phases—is 28 days. Each phase lasts seven days. Therefore (if the math works out) 28 days divided by seven days is four quarters.

I knew all that stuff I learned in sixth grade would come in handy someday.

The first quarter is when the lunar face on the right side is lit by the Sun. The second quarter is the full moon, when all the face is lit.

The third quarter is when only the left half of its face is lit by the Sun, and the fourth quarter is the new moon when the side of the moon we see is not lit by the Sun at all.

Now, back to Gemini. References to Gemini can be found in the ancient records of Babylonian and Chinese astronomers, but the Greek and Roman names for the so-called twin stars are the ones we remember today.

Since Gemini is one of the zodiacal constellations, the moon and the visible planets often make visits to the area. In fact, for the next couple of months the moon will be at almost the same position relative to Gemini as it is tonight.

It is located between fellow zodiacal constellations Cancer to the upper left and Taurus on the lower right. Auriga is located to the upper right.

These spring evenings it is located almost overhead just above Orion, the Hunter. In fact, it looks like Gemini is standing on Orion's head.

The two bright stars at the top of the rectangle that makes up the bodies of the twins are Castor—on the right side—and Pollux on the left.

If you have access to a large enough telescope, you will find that Castor is not just one star, it is made up of six stars, all held together by a common gravity.

The six stars of Castor are 52 light-years away and Pollux is 34 light-years distant. As we look at Gemini, we are looking out, away from the center of our galaxy which explains why there are not many star clusters or nebula within its borders.

One exception is M35, a nice open star cluster located just to the right of the right foot of

Pollux. They are both visible in the same field of binocular view.

**SKY WATCH:** April 17th the moon is located about the middle of the left side of Gemini. The next night the moon has moved to just below Cancer the Crab. See if you can locate M44, the Beehive, star cluster in the middle of Cancer. It is about seven degrees above the moon. On Saturday, April 20, the growing moon is just below Regulus in Leo, the Lion.

On April 24, the moon is very near bright Spica in Virgo and the next night, April 25, will feature a pairing of the moon with another planet, this time Saturn. One more thing, Saturday, April 20, is International Astronomy Day so get outside and look at the moon near Regulus. While you are out there why not take in Leo next door, take a scan at the Coma cluster just behind Leo and anywhere else your fancy takes you.

**NEXT WEEK:** More astronomical blathering.