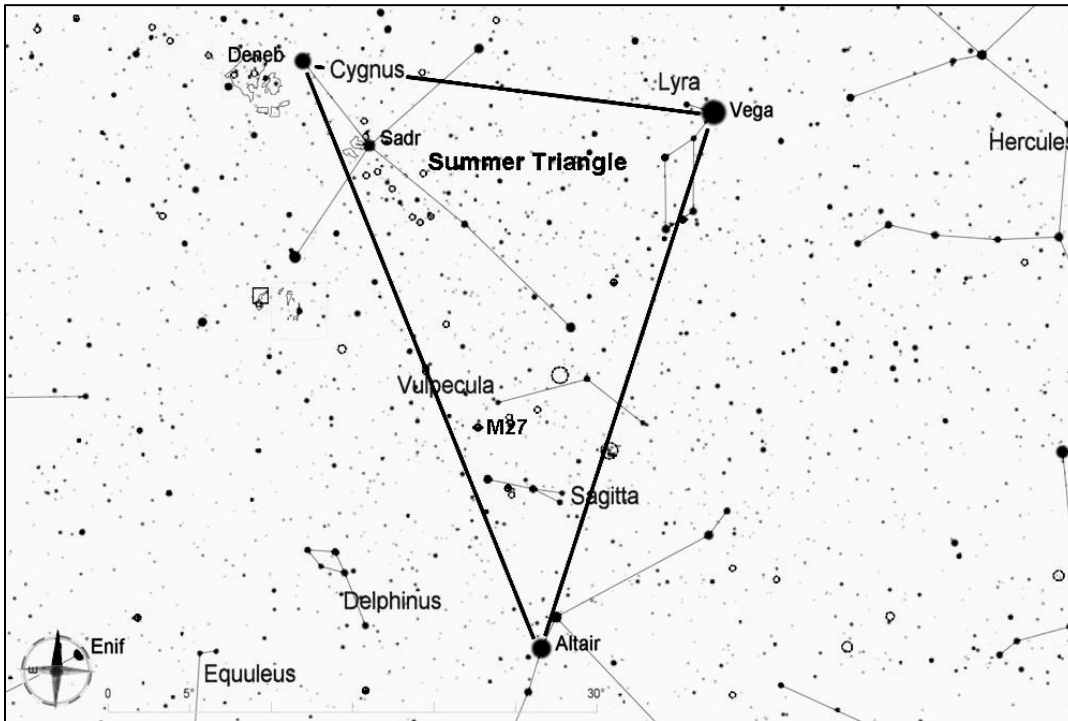


## Epsilon Lyrae (Double Double) and T Lyrae (Carbon Star)

Epsilon Lyrae is the famous Double double star, consisting of two close pairs. The separation for each pair is only about 2 arcseconds, so fairly high magnification is needed to resolve them. This star system is about 162 light years from Earth. The carbon star T Lyrae is a very red star that is well worth tracking down. It is about 2300 light years away, and more than 200 times as luminous as our Sun.



Start by finding the Summer Triangle, which consists of the three of the brightest stars in the sky--Vega, Deneb, and Altair. The Summer Triangle is high overhead throughout the summer, and it sinks lower in the west as fall progresses.

For this star hop, start from brilliant blue-white Vega (magnitude 0), the brightest of the three stars of the Summer Triangle.

The constellation Lyra has a distinctive shape consisting of a small triangle (including Vega) connected to a parallelogram. Find the small triangle that includes Vega, Zeta ( $\zeta$ ) and Epsilon. Aim at Epsilon, and start with a low power eyepiece to find the two bright pairs. Then switch to high power (at least 100x) to resolve the two close pairs. To find the red star T Lyrae, visualize a similar triangle with Vega and  $\zeta$  going in the opposite direction, as shown below. Aim there and use a low power eyepiece to look the the very red star.

