Drift Method:
Let Earth rotate celestial objects into view

The drift method is useful – even for experienced amateurs – if the observer is unsure as to how the object will appear through the telescope used, and under the prevailing atmospheric and light pollution conditions. If it can't be seen at the calculated time, then it is likely because of a combination of those three factors.

24 hours of Right Ascension exist because 24 hours comprise a full rotation of Earth. As our planet rotates, an hour of RA passes from east to west for every hour of elapsed time on Earth. This applies for every point on the celestial sphere.

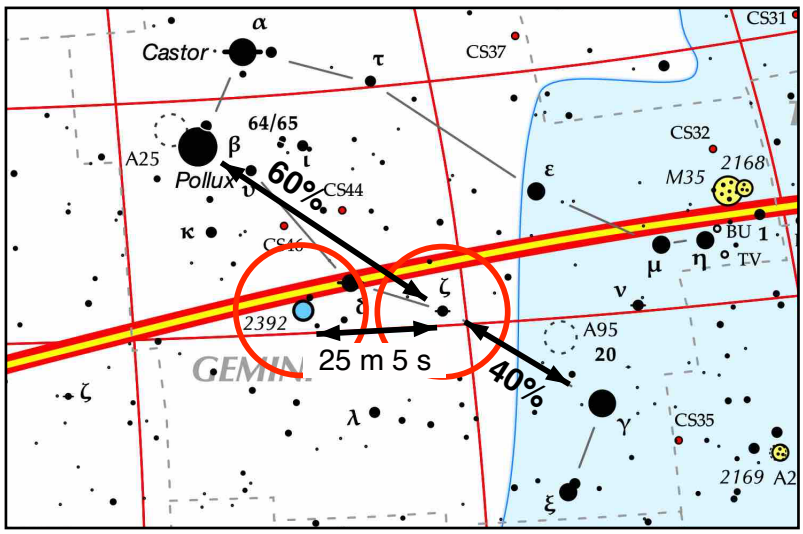
General Procedure:
1. Find a star positioned at the same declination as the target, but somewhat to its west.
2. In a reference guide, find the coordinates of the guide star and the target.
3. Calculate the difference of their minutes of RA.
4. Position the star in the center of the field of an eyepiece that gives a wide true field.
5. If the difference in their Declination is 20 to 30 minutes: Move the eyepiece northward by 1/2 field if the target is farther north than the guide star, move it southward by 1/2 field if it is farther south.
6. Wait the calcuated RA time difference. Bingo! The target should have drifted into the center of the eypeice's field. Don't be late or it will have drifted westward out of the field.

Example ...

NGC 2392
Magnitude 10.1
Size 48" x 48"

Zeta Geminorum
7h 5m 24s
20º 32' 14"

NGC 2392
7h 30m 29s
20º 51' 46"



Target: NGC 2392, a planetary nebula in Gemini.
A. Choose Zeta Geminorum as the guide star. At 4th magnitude, it lies about 60% of the distance between Pollux and Gamma Geminorum, two easily seen stars.
B. Cooridinates:
Zeta Geminorum – RA: 7 h, 5 m, 24 s.; Dec: 20º 32' 14".
NGC 2392 – RA: 7 h, 30 m, 29 s; Dec: 20º 51' 46"
C. Center Zeta Geminorum in the telescope field. Since the declination difference is +19 minutes, nudge the eyepiece 1/2 field northward.
D. RA difference equals the time wait: 25 m 5 s.
E. Wait 25 m 5 s and NGC 2392 will lie in the field. Don't be late!