## How do you find celestial objects? $\Leftrightarrow$ Finding celestial targets the modern way $\Leftrightarrow$

5 Center on first quide star

6 Center on second quide star

Computerized "GoTo" telescopes ... the quick and easy method:

- 1 Level the telescope mount
- 2 Point the tube towards north
- 3 Indicate the date and time
- 4 Indicate observing location
- 7 Enter the target's designation8 The scope automatically slews to it

## $\clubsuit$ Finding celestial treasures the old fashioned way $\bigstar$

Learn the stars and constellations ★ There is no subsitute for sitting under the stars with a map and red flashlight. ★ Use a star map that plots all stars visible to the unaided eye. ★ Start by finding well-known star patterns such as the Big Dipper, or the constellation of Orion or Cassiopeia. ★ Continue by identifying neighboring star patterns. Target - NGC 7789 789 2 Finderscope: little scope, big view Why a finderscope? Ca ★ Gives a wide field of view, about 5<sup>o</sup> Must be aligned with the main telescope, Only the bright planets, brighter nebulae and star clusters are visible Finderscope view, ★ note the inverted image Simply... ★ Point the finder at a suitable guide star, or Triangulate to the object by using nearby recognizable stars. The Big Dipper Star Hopping: finding the faintest of objects... 3 Eyepiece view Before hopping begins: of M108 ß ★ Must have a detailed star map. ★ Must know the field of view of the M108 eyepiece. As an example, find galaxy M108: ★ Begin hopping at a reference star, in this case Beta ( $\beta$ ) Ursa Majoris in the Big Dipper. ★ Match the stars on the map with those in the eyepiece.

 ★ Hope among the stars in each subsequent field of view until the correct field is reached.
★ Look closely to see the dim galaxy M108.

Star hopping to M108 from Beta Ursa Majoris

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