



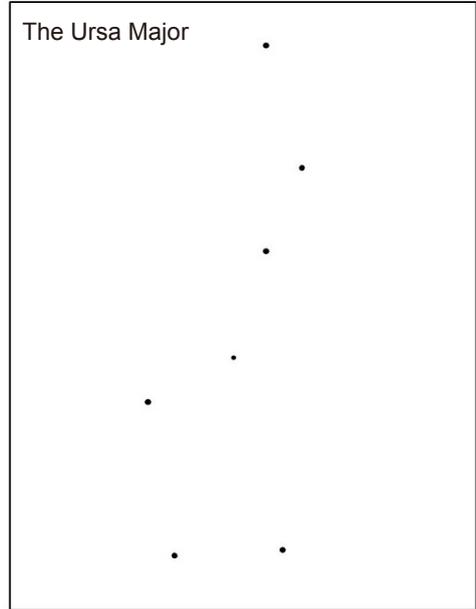
Let's Observe Double Star!

Observation & Sketch

Name _____

A lot of stars are shining in the night sky. Among them, there are some sets of stars that are very close to each other. These are called “double star”. Let's find a very famous double star “Mizar” and “Alcor”, and observe it through a telescope.

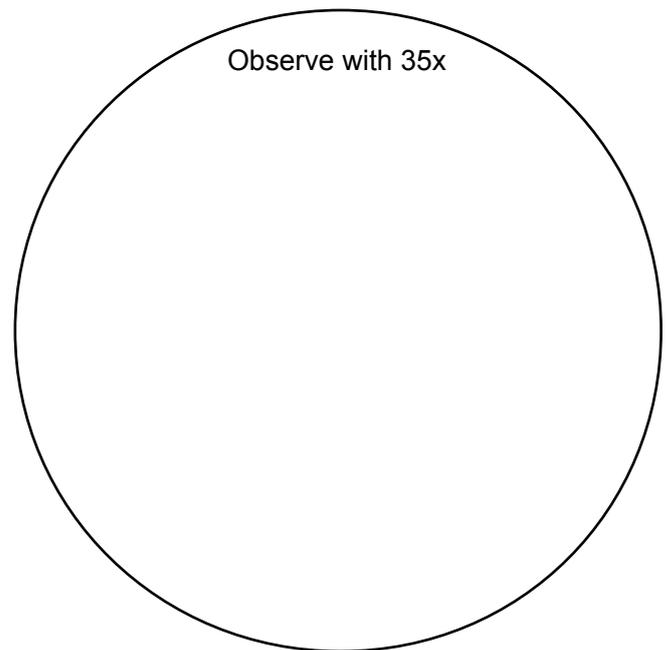
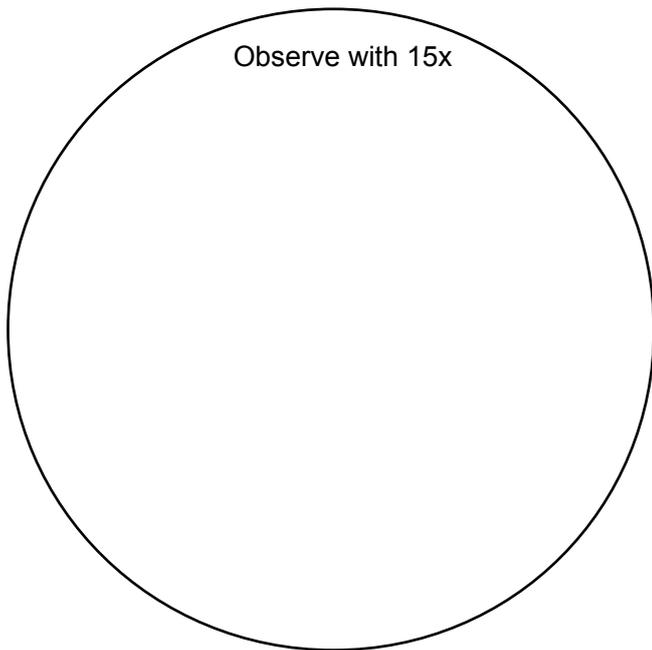
- Let's observe bright seven stars in the Ursa Major.
Find the star which is close to another dark star. They are shining like parent and child.
When you find it, mark it to the star chart on the right, and sketch what we see with both 15x and 35x telescope.



Date and Time of Observation _____

Location of Observation _____

Diameter of Telescope _____ cm



- When you observe the bright star with 35x telescope, look it carefully.
If you notice anything, add those in the circle (for 35x).
- Let's observe the bright star in the Ursa Major with telescope that has more power than 35x.
What you saw?



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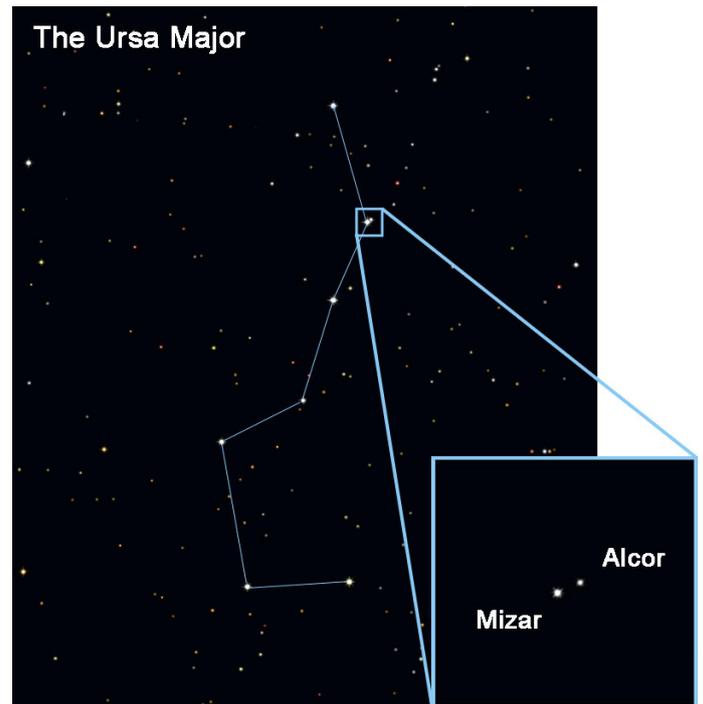
Post Observation Study

Name _____

■ In the double star that is found by the observation, the brighter star is called “Mizar”, and the fainter one is called “Alcor”.

■ From the result of the sketch, you can verify that the distance between these two stars would become larger when these are observed by naked eyes, 15x telescope, and 35x telescope. Thus, when the magnification of the telescope becomes higher, the stars would be also magnified relatively and easy to observe.

■ From the last observation that used more than 35x telescope, you would know the star “Mizar” is able to separate into two stars. The star “Mizar” is also double stars.



Images provided by Stellanavigator / AstroArts Inc.

■ There are many other double star. From the past, it is said that people in Mongolia have good eyesight, then it would be possible to say that they could resolve the double star into two stars with naked eyes. In the ancient time of Arabic, Mizar and Alcor were used for eyesight test. So, there might be any legend about this double star in Mongolia, like that. Let's research about it including legend of other double star and write it down.