

Reading/Using Star Charts - Exercise

Student Name: _____

Step 1.

- A. Start Stellarium. It should be in the default configuration you setup in the Using Stellarium exercise. You should be viewing to your South and set the program to full screen.
- B. Use the Location Window to set Stellarium to your default location.
- C. You will see the stars as round white dots, where the size indicates the stars apparent brightness. Planets, asteroids, comets and dwarf planets are circled in white. They may or may not display labels depending on your FOV and how bright the object is.
- D. You should see the constellation names, stick figures and the constellation boundaries.
- E. You will also see some small, orange markers. These indicate deep sky objects.

Step 2.

- F. Set the time to 01:00:00 Local Time and the date to the 2016 approximate winter solstice, 2016/12/21 and set the viewing to South. Use the Search Window to locate and center the star Mirzam.

- **Question 1:** Name the brightest star just to the East of Mirzam. _____
- **Question 2:** The star is part of what constellation?

- G. Select the star and center it in the FOV.

- **Question 3:** What is the Bayer Designation of the star?

- **Question 4:** What is the Hipparchus catalog number?

H. Just to the Southwest of the star is a Messier object [M followed by 1-3 digits]. If the screen seems cluttered with text, zoom in just a little. Select and center this object.

- **Question 5:** What is the object's Messier designation (remember to include the "M")? _____

- **Question 6:** In which constellation is this object located?

- **Question 7:** What type of object is this? _____

I. Now, use the Search Tool to locate NGC1976.

- **Question 8:** In which constellation is this object located?

- **Question 9:** What type of object is this?

- **Question 10:** What is its Messier designation?

- **Question 11:** What is its common name, if it has one?

J. Zoom in to see a photo of the object

Step 3.

K. Use Date/Time Window to set the Local Time to 00:00:00 (midnight) and the date to the 2016 approximate summer solstice, 2016/06/21 and set the viewing to South and the FOV to about 60 degrees. Locate the star Acrab and center it.

- **Question 12:** Name the brightest star Southeast of Acrab.

- **Question 13:** The star is part of what constellation?

L. Select the star and center it in the FOV. You may need to zoom in to about 30° FOV.

- **Question 14:** What is the Bayer Designation of the star?

- **Question 15:** What is the Hipparchus catalog number?

M. Now, use the Search Tool to locate Saturn.

N. Select the center button to center Saturn in the field of view.

O. Zoom in until you start to see its moons (circled in white).

- **Question 16:** Name as many moons as you can (continue to zoom in until no additional moons appear)
