Международная дистанционная астрономическая олимпиада
International Remote Astronomy Olympiad

Италия, Милан

5-13. XI. 2021

Milan, Italy

ЯЗЫК
language**English**

Round on Maps and Images. Questions to answer

10. Where is my planet?

The attached map shows the sky as it could be observed at 13:00 UT of November 8, 2021, if no atmosphere was present, from a locality on the Earth located at longitude $\lambda = 0^\circ$ and latitude φ . The positions of the Sun and of the Moon (as a small sickle) are shown. In the map planets Jupiter, Mars, Mercury, Saturn and Venus are also visible, represented with dots whose dimension is proportional to their current luminosity.

- 10.1. Estimate the latitude φ of the place where observation could be made and write it in degrees inside the box on right top of the map.
- 10.2. Draw on the map as a dotted line the ecliptic and identify with "Ecl".
- 10.3. Draw on the map as a continuous line the celestial equator and identify with "Eq".
- 10.4. Identify on the map the planets and indicate them with their standard designation (like $\odot$, $\square$, $\circ$, σ , $\blacktriangleleft$, $\hbar$, $\oplus$, Ψ).
- 10.5. Identify on the map the following 14 constellation, writing their three letter code nearby: Aql, Boo, Cen, Cru, Crv, Del, Her, Leo, Lib, Lyr, Oph, Sgr, TrA, Vir.
- 10.6. Identify on the map the following 5 stars, writing the indicated three digit code nearby: Acrux (Acr), Albireo (Alb), Antares (Ant), Denebola (Den), Mizar (Miz).

11. Who is who?

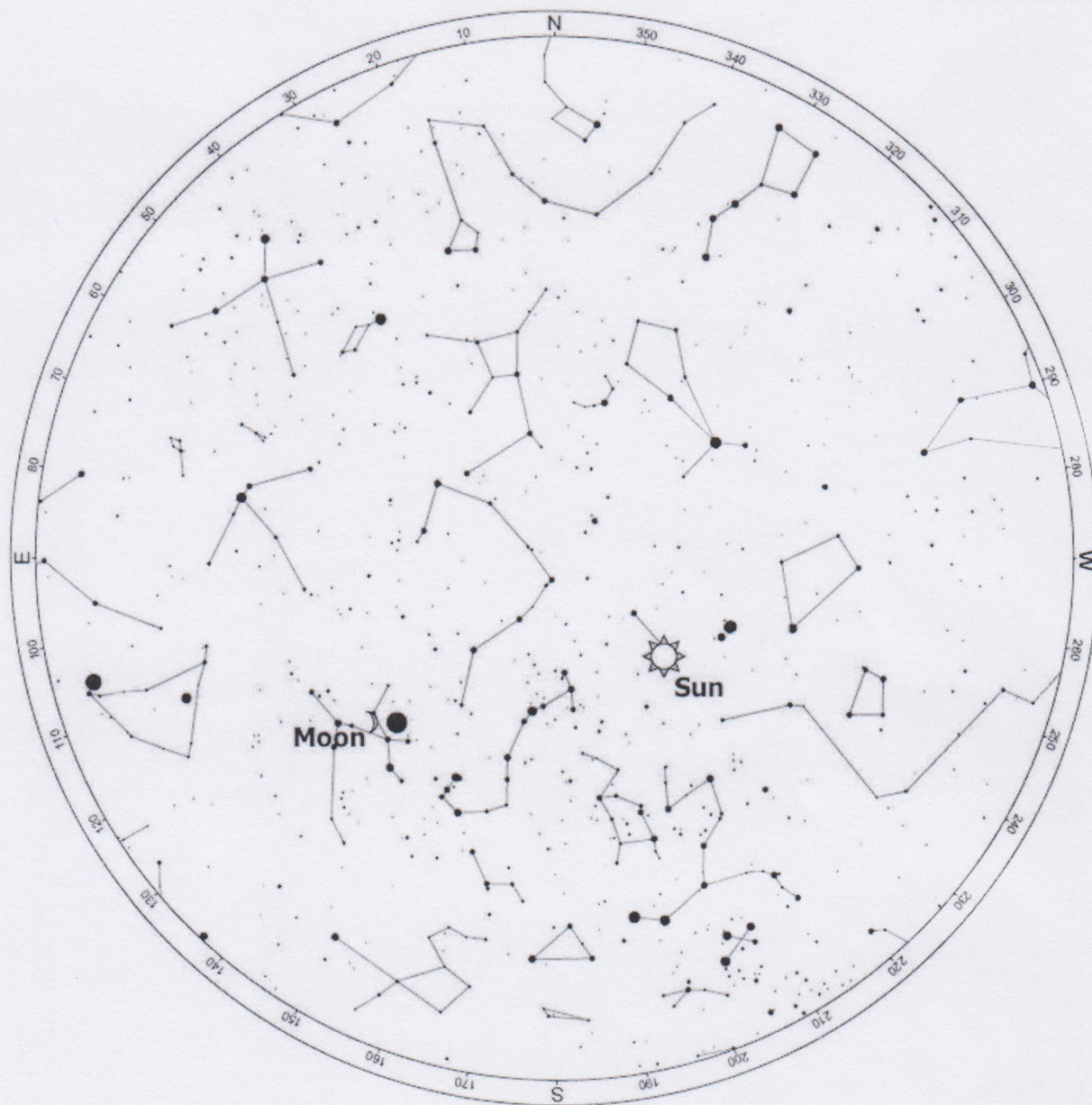
You are provided with a sheet where images of 12 astronomical objects are shown. Identify these objects marking the correct answer among the listed four. Multiple choose or corrections are not allowed.



Code of participant код участника

Round on Maps and Images. Map for problem 10

$\varphi =$





Code of participant код участника

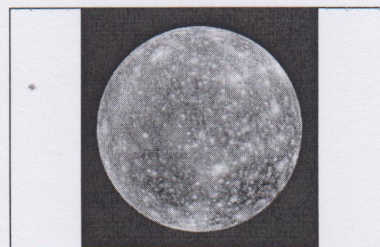
Round on Maps and Images. Images for problem 11



- ☐ Hyperion
- ☐ Comet P/1
- ☐ Mimas
- ☐ Enceladus



- ☐ Halley comet
- ☐ Comet P/47
- ☐ Comet P/67
- ☐ Hale-Bopp comet



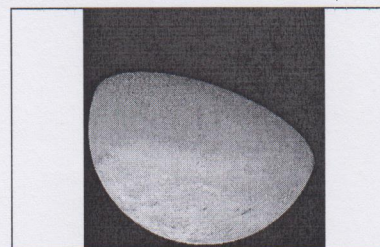
- ☐ Moon (far side)
- ☐ Ganymede
- ☐ Mercury
- ☐ Callisto



- ☐ Calypso
- ☐ Deimos
- ☐ Phobos
- ☐ Amalthea



- ☐ Miranda
- ☐ Ariel
- ☐ Umbriel
- ☐ Titania



- ☐ Nereid
- ☐ Mimas
- ☐ Triton
- ☐ Pluto



- ☐ M1
- ☐ M31
- ☐ M45
- ☐ M101



- ☐ M1
- ☐ M31
- ☐ M45
- ☐ M101



- ☐ M1
- ☐ M45
- ☐ M31
- ☐ M101



- ☐ M1
- ☐ M31
- ☐ M45
- ☐ M101



- ☐ Comet Tempel 1
- ☐ Comet P/67
- ☐ Comet Tempel 2
- ☐ Comet P/47



- ☐ Orcus
- ☐ Vesta
- ☐ Charon
- ☐ Pluto