АСТРОНОМИЧЕСКОЕ ОБЩЕСТВО

EURO–ASIAN ASTRONOMICAL SOCIETY

Round **Obs**

Group α β

XVII Международная астрономическая олимпиада
XVII International Astronomy Olympiad

Корея, Кванджу   16 – 24. X. 2012   Gwangju, Korea

язык
language   *English*

Observational round. Basic grading criteria

9. Pointing objects in the sky (the Polaris and the Ecliptic): **4 pt**.
    9-1. If pointed correctly, **2 pt**, if not, 0 pt.
    9-2. If pointed correctly, **2 pt**, if not, 0 pt.

10. NGC869/884 (The Perseus double cluster): **6 pt**.
    10-1. If the cluster is in the field of view of the telescope, **3 pt**. If not, 0 pt
    10-2. Hour angle of the double cluster

Time	Hour angle
21:00	-60 or 300 degree
22:00	-45 or 315 degree
23:00	-30 or 330 degree

    4 min shift = 1 degree shift
    The end time of the exam for each group was recorded.
    If the hour angle at the end time and the answer agree within ±10 degree, **3 pt**.
    If the difference is more than ±10 degree, -1 pt for each interval of an additional difference of 0 degree < hour angle ≤5 degree. This means that 0 pt for the answer with more than ±20 degree offset.
    If two answers were given for each object with separation more than 1 degree, 0 pt.

11. M15: **5 pt**.
    If the target was within the field of view of the telescope, **5 pt**.
    If not, 0 pt.

12. Zenith distance of Mercury: **5 pt**.
    Mercury always stays close to the Sun, but RA of it is about $15^h 04^m$, while RA of the Sun is $13^h 38^m$. The combination of the knowledge of the latitude of the site, and the location of the Sun, and at the time when the observation started, it was already well below the horizon.
    On October 19, the Zenith distance of Mercury was the following.

Time	Zenith distance (degree)
21:00	116
21:15	120
21:30	123
21:45	126
22:00	129
22:15	132
22:30	135
22:45	138
23:00	140
23:15	143

    If the zenith distance at the time closest to the above table and the answer agree within 15 degree, **5 pt**.
    For the additional difference at intervals of 0 degree < difference ≤ 5 degree beyond the ±15 degree, -1 pt was taken off. This means that 0 pt was given if the difference is more than 35 degree.