
Observational round

Both age groups (A and B).

*Text of these problems is available also
in [Bulgarian](#), [Danish](#), [Portuguese](#) and [Russian](#).*

9. The Sun in optical and radio range.

With the help of a "school telescope" examine and draw the details visible on the disk of the Sun. Orientate the Sun according to the cardinal points.

Identify the details of your picture with the details of one-dimensional radio-sections of the Sun fulfilled in previous days with [RATAN-600](#).

Radio observations were carried out at noon, the knife beam was directed vertically and covered all disk of the Sun.

10. "The Star-Splitter".

*...That telescope was christened the Star-Splitter,
Because it didn't do a thing but split
A star in two or three, the way you split
A globule of quicksilver in your hand
With one stroke of your finger in the middle...
Robert Frost "The Star-Splitter"*

With the help of a "school telescope" find in the sky and divide several (not more than 5) binaries into components.

Pay attention to the brightness and colours of the components.

Explain the observed relation between the brightness and colors of the components (fill the table below).

	Object	Colour of main comp.	Colour of companion	Explanation of the observed facts (colour, etc.)
1				
2				
3				
4				
5				