**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Country: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Practical 06**

Astronomy

Measure the Earth rotation speed

In front of you there is a table with a hole. The sun light passes through the hole and hits a sheet of paper on the ground. After some time the sun light spot will move a certain distant “h”.

“H” gives the apparent movement of the sun in the sky.

“d’ stands for the table height.

“D” stands for distance between Earth and Sun, which is 1,5 x 1011 m. As you may notice the distance between Earth and Sun is much larger than the table height so you could approximate the situation to the following diagram)

H



D

d

h

On the given sheet are marked the two positions of the sun light spots with a 10 minute interval. Measure this distance “h”. (1 point)

Calculate “H” from the given data (show the procedures). (2 points)

Calculate the apparent linear speed of the sun in km/s (show the procedures). (2 points)

Calculate, using your data, the angular speed of Earth rotation (degrees/min) (show the procedures). (2 points)