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TASTE
Teaching Astronomy at Educational Level

(2020-1-IT02-KA201-079528)

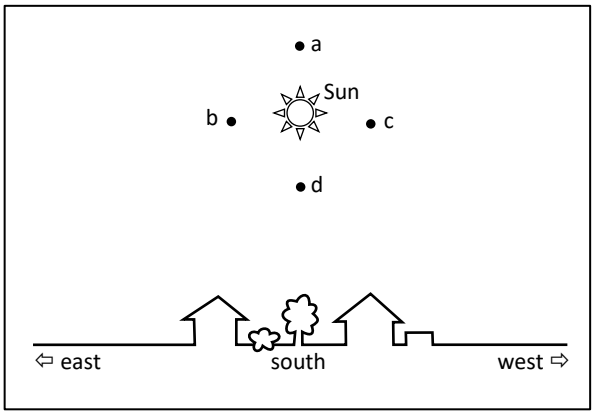
AMoSS Testinstrument

English version

Question 1

AMoSS IA

On March 21st, an observer in Brussels sees the Sun in the south high above the horizon as shown in the figure. Where does this observer see the Sun one hour later?

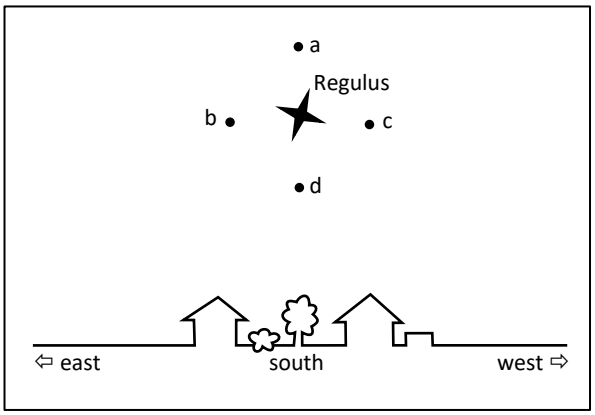


a) Near point a
b) Near point b
c) Near point c
d) Near point d
e) In the same point: the Sun's position in the sky doesn't change.
f) I really don't know.

Question 2

AMoSS IIB

On March 21st, an observer in Brussels sees the star Regulus at its highest point, as shown in the figure. Where does this observer see Regulus at its highest point one month later?



a) Near point a
b) Near point b
c) Near point c
d) Near point d
e) In the same point as on March 21st
f) I really don't know.

Question 3

AMoSS IID

On the first night of winter, in Brussels the star Mintaka reaches a maximum altitude of 39 degrees towards the south. In another European city Y, the maximum altitude of Mintaka during the same night is 44 degrees. What can you conclude from this?

a) Brussels is situated 5 degrees south of city Y.
b) Brussels is situated 5 degrees north of city Y.
c) Brussels is situated 5 degrees west of city Y.
d) Brussels is situated 5 degrees east of city Y.
e) From the position of Mintaka, you can't make decisions about the location of city Y.
f) I really don't know.

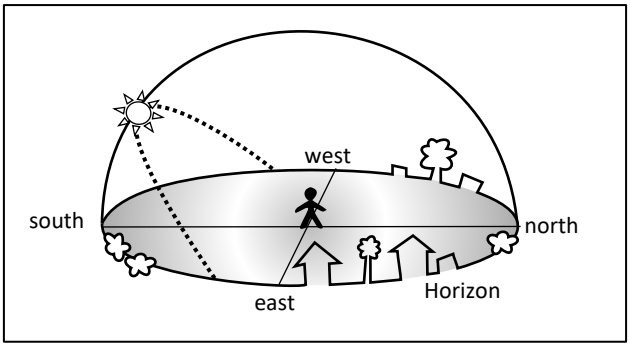
Question 4 *AMoSS IV*

The constellation Gemini is visible in Brussels in February during the night, but not in July. Why is this?

a) In July, the constellation Gemini doesn't rise above the horizon for an observer in Brussels.
b) When the constellation Gemini is above the horizon in July for an observer in Brussels, the Sun is also above the horizon.
c) In July, the constellation Gemini is only visible in the southern hemisphere of the Earth.
d) Because the Earth rotates around its axis, you see different stars in the sky in July than in February.
e) I really don't know.

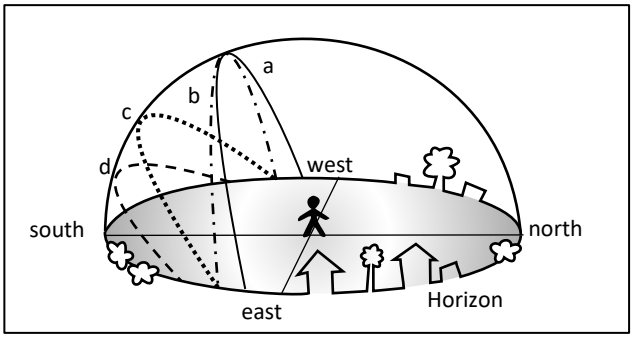
Question 5 *AMoSS IE*

The dotted line describes the motion of the Sun on November 1st for an observer in Brussels. This line is called the Sun's path.



How does an observer see the Sun's path on the same day, at 2000 km south of Brussels?

a) According to the full line a
b) According to the dashed line b
c) According to dotted line c: same Sun's path as in Brussels.
d) According to the dashed line d
e) None of these lines represents the Sun's path.
f) I really don't know.

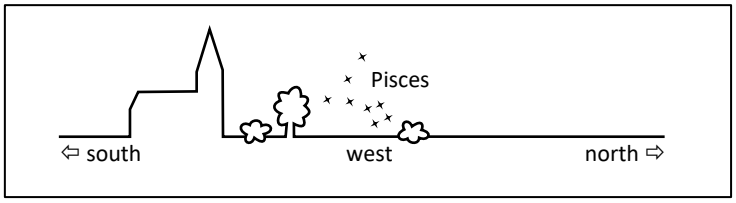


Question 6

AMoSS IIC

In September, an observer in Brussels sees the setting of the constellation Pisces in the west, as shown on the figure. Where does this observer see the setting of the constellation Pisces one month later?

a) More to the south
b) At the same position
c) More to the north
d) I really don't know.

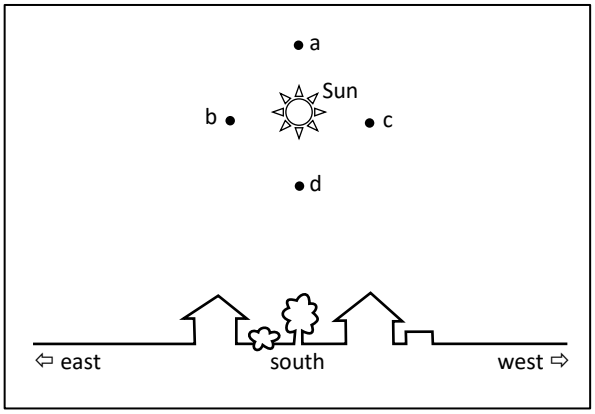


Question 7

AMoSS IB

On March 21st, an observer in Brussels sees the Sun at its highest point, as shown in the figure. Where does this observer see the Sun one month later at its highest point?

a) Near point a
b) Near point b
c) Near point c
d) Near point d
e) In the same point as on March 21st
f) I really don't know.



Question 8

AMoSS ID

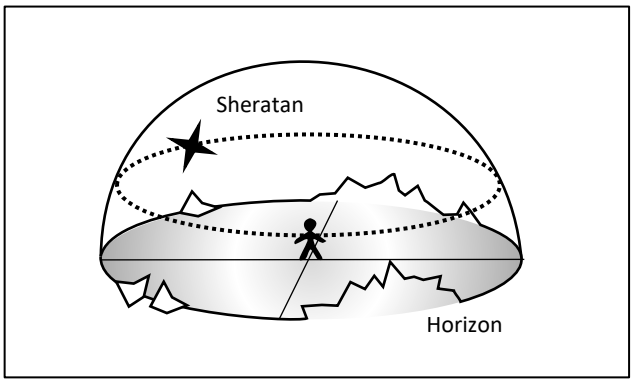
On the first day of summer, in Brussels the Sun rises to a maximum altitude of 62 degrees towards the south. In another European city X, the maximum altitude of the Sun on the same day is 58 degrees. What can you conclude from this?

a) Brussels is situated 4 degrees south of city X.
b) Brussels is situated 4 degrees north of city X.
c) Brussels is situated 4 degrees west of city X.
d) Brussels is situated 4 degrees east of city X.
e) From the position of the Sun, you can't make decisions about the location of city X.
f) I really don't know.

Question 9

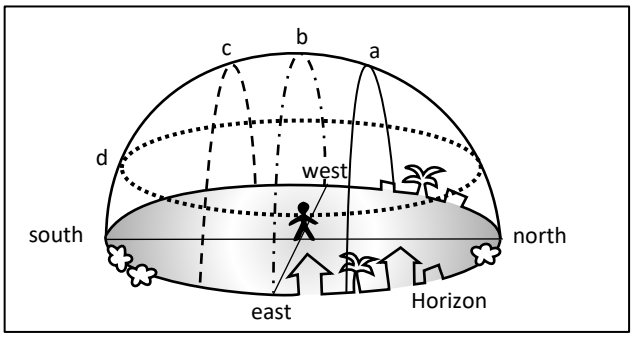
AMoSS IIE

The dotted line describes the motion of the star Sheratan on November 1st for an observer at the North Pole. This line is called Sheratan's star trail.



How does an observer at the equator see Sheratan's star trail in the same night?

a) According to the full line a
b) According to the dashed line b
c) According to the dashed line c
d) According to the dotted line d: the same star trail as at the North Pole
e) None of these lines represents the star trail there.
f) I really don't know.

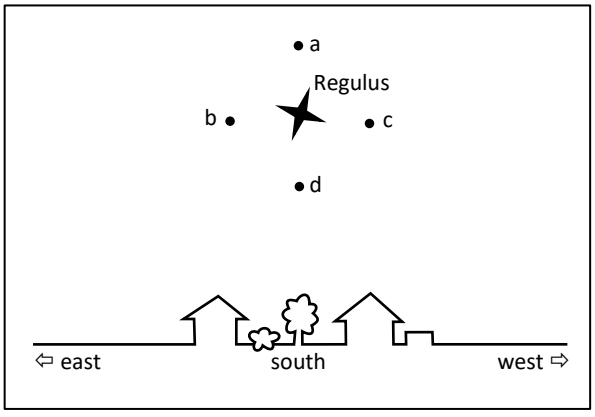


Question 10

AMoSS IIA

On March 21st, an observer in Brussels sees the star Regulus in the south high above the horizon as shown in the figure. Where will this observer see Regulus one hour later?

a) Near point a
b) Near point b
c) Near point c
d) Near point d
e) In the same point: Regulus' position in the sky doesn't change.
f) I really don't know.



Question 11 *AMoSS III*

In Belgium we experience different seasons throughout the year. What is the main cause of this?

a) The distance between the Earth and the Sun changes throughout the year.
b) The speed of the Earth on its orbit around the Sun changes throughout the year.
c) Due to the tilt of the Earth's axis, Belgium is sometimes closer to and sometimes further away from the Sun throughout the year.
d) Due to the tilt of the Earth's axis, the maximum height the Sun reaches during a day changes throughout the year.
e) I really don't know.

Question 12 *AMoSS IC*

In September, an observer in Brussels sees the sunset in the west as shown in the figure. Where does this observer see the sunset one month later?

a) More to the south
b) At the same position
c) More to the north
d) I really don't know.