

NIGHT SKY

SPRING

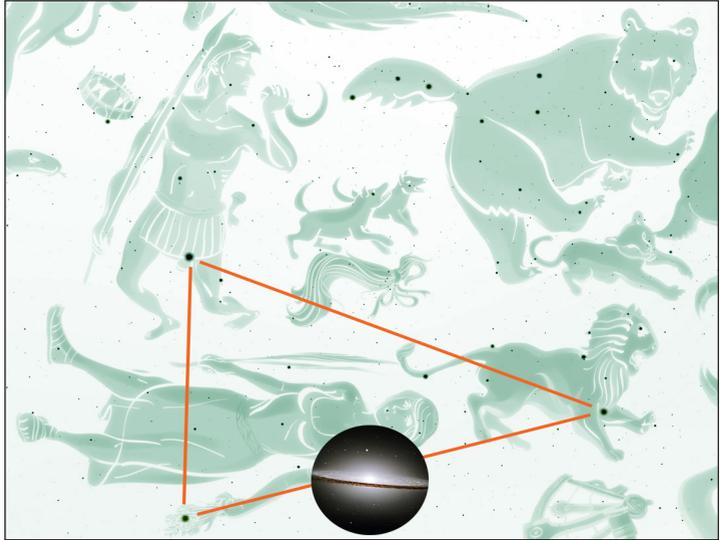


Fig. 1:

TASK 1)

The appearance of the sky changes throughout the year. Each season has typical constellations that are visible during the night. In other seasons they are visible only partially or not at all. Why do the constellations change?

- a) Because of the Earth's rotation.
- b) Because the Earth is orbiting the Sun.
- c) Because the Solar System is orbiting the centre of the Galaxy.

TASK 2)

Great Bear (Ursa Major) is one of the constellations which are visible the whole year. Its seven most brightest stars are called The Big Dipper. Find it in Figure 1 and link the stars to represent it.

TASK 3)

Three bright stars which we can see in spring – Regulus, Arcturus and Spica – form the so called Spring Triangle. Find those stars in Figure 1, write down their names and constellations to which they belong.

TASK 4)

Using a telescope, we may find a spiral galaxy in the constellation of Virgo. We look at it from its side, therefore, it resembles a mexican hat. What is it called? Write its name also in Figure 1.

a) Fedora

b) Panama

c) Sombrero

SUMMER



Fig. 2:

TASK 5)

Around the 12th August, we may see the Perseid meteor shower that counts tens of shooting stars. What is the correct scientific term for a „shooting star“?

a) meteor

b) meteorite

c) meteoroid

TASK 6)

Using a telescope, we may find a planetary nebula in the constellation of Lyra. We call it Ring Nebula. What is a planetary nebula?

a) a gaseous envelope around a forming planet

b) a gaseous envelope that was ejected by a dying planet

c) a gaseous envelope that was ejected by a dying star

TASK 7)

Three bright stars Vega (Lyra), Deneb (Cygnus) and Altair (Aquila) shine in the summer sky. They form a Summer Triangle. Find these stars in Figure 2, connect them with a line and write down their names.

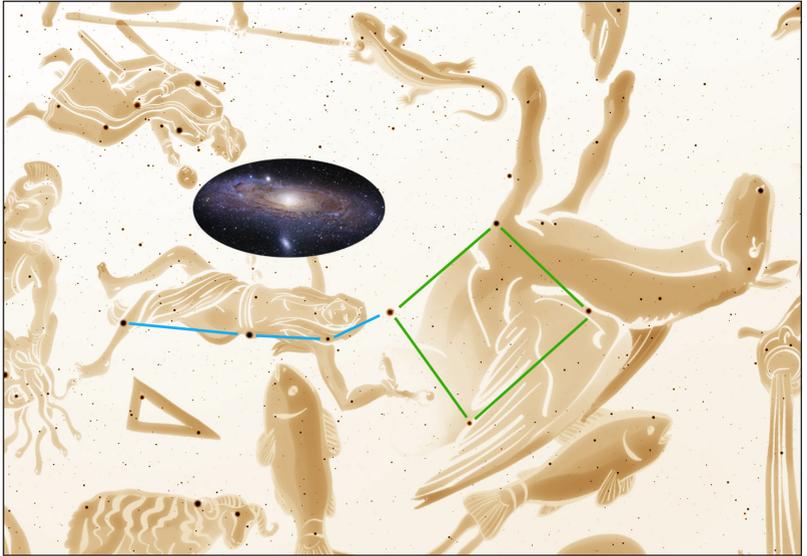
AUTUMN

Fig. 3:

TASK 8)

Orientation on the autumn sky is easier using four stars that form a square. Three of them belong to the constellation of a mythic winged horse. Find it and write down its proper name in Figure 3.

TASK 9)

Three stars that belong to the constellation of Andromeda go to the left of this square. There, we may find a nebulous object – Andromeda galaxy. It is about 2,5 million light years away. Why is it unique?

- a) It is the biggest galaxy that we know in the universe.
- b) It is the closest galaxy to our Galaxy.
- c) It is the most distant object that we can see with a naked eye (without a telescope).

TASK 10)

One of the most prominent autumn constellations is Cassiopeia. It never sets below the horizon at our latitude. The brightest stars form a letter “W”. Find it, write the name in Figure 3 and connect these five stars.

WINTER

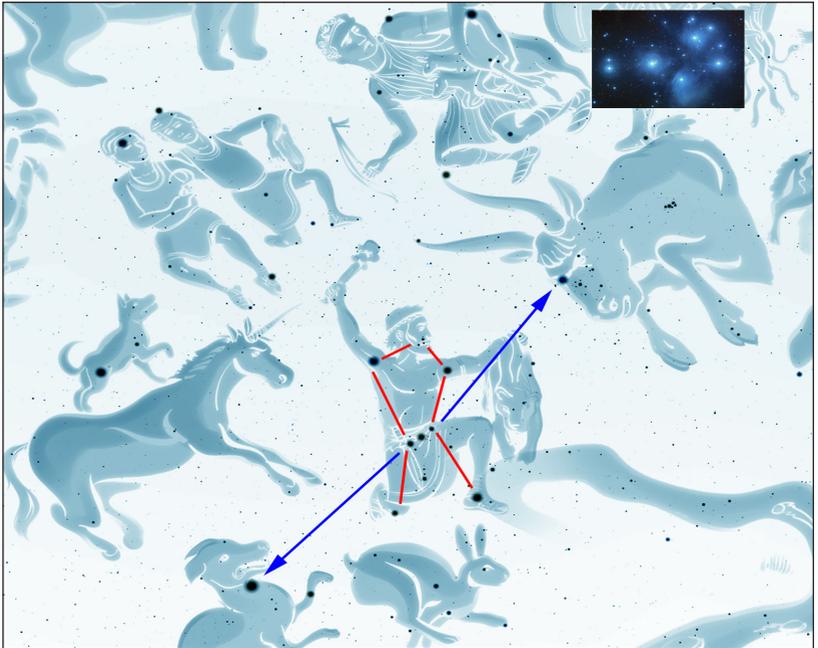


Fig. 4:

TASK 11)

Bright stars of the Orion constellation are linked. When extended to the left, three stars of the Orion's belt lead us to the brightest star in the night sky. Write its name and the name of its constellation in Figure 4.

TASK 12)

The Orion's belt, when extended to the right, leads us to the brightest star in Taurus (the bull). Write down its name in Figure 4.

TASK 13)

On the bull's back there is a group of stars which were born together and are bound as one object – an open cluster. Connect the photograph with these stars and write its name in Figure 4.