# GEOMETRICIAN'S VIEWS

## TOPIC: CONSTELLATIONS

### Mathematical View

In order to connect mathematics and sky observation, in this lesson students learn about coordinate plane. There are several objectives for students such as: to know how to draw and label Cartesian plane and its parts, to plot points on the point, to read coordinates for a point for a graph, use GeoGebra to plot points.

Researcher
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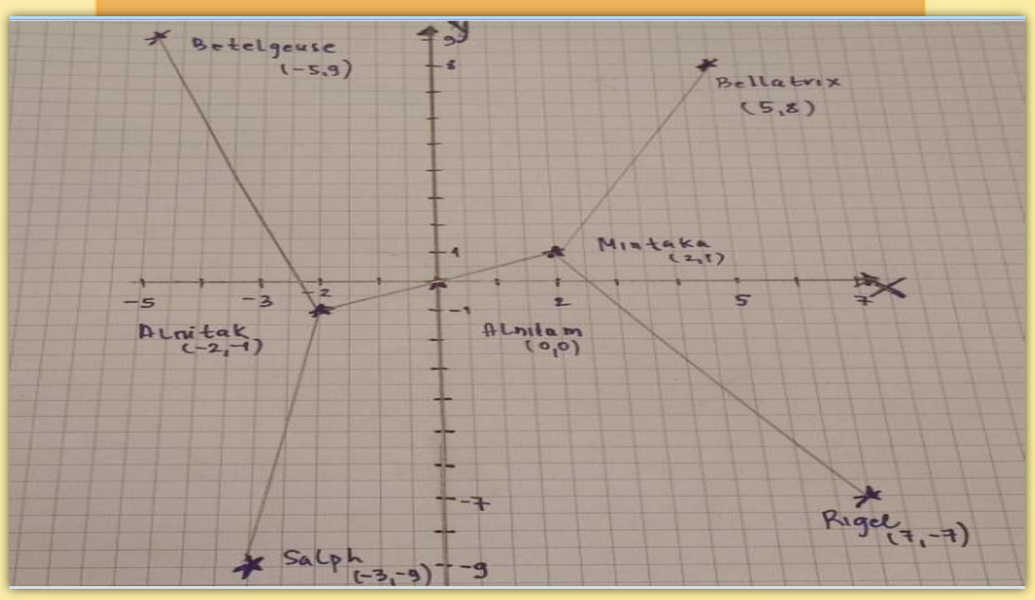
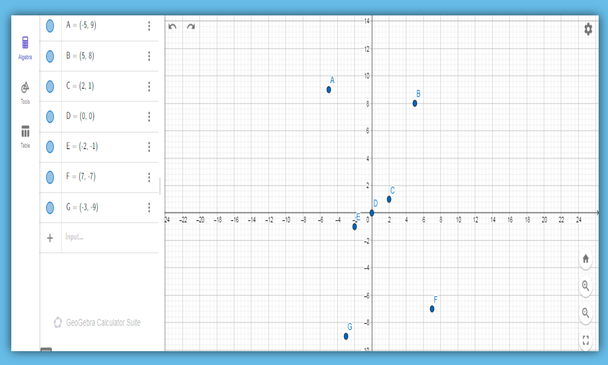



### Artistic View

This lesson summarize topics of previous lessons but trough artistic design. Students get possibility to explore various techniques in order to express them self about constellations. Art teacher explain them how to achieve certain effect on their pictures, such as shadows or lights.

Artist
Renata Zorić

### Common View





In the introduction of the lesson students learn about Cartesian plane. Cartesian plane is named after French mathematician and philosopher Rene Descartes. It is defined as two perpendicular numbered lines. It is common to call horizontal line as x-axis and vertical line as y-axis. Using x and y axes every point can be described by use of ordered pair of numbers. For example, the point A (-2, 1) is 2 units to the left and 1 units up on the coordinate system. In order to plot a point on graph students first need to indentify x and y axes, locate values on the x and y axes, and plot the point where x and y meet.
Students' task is to plot the Orion constellation. One part of stars in this constellation are: Betelgeuse, Alnitak, Salph, Alnilam, Mintaka, Bellatrix and Rigel. Their coordinates are (-5,9), (-2,-1), (-3,-9), (0,0), (2,1), (5,8), (7,-7), respectively.

**"For me, everything in nature is mathematics."**
Rene Decartes

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