the rotation of the designs around axis y=76, z=150

In this part of the essay we will discuss the functions of rotation of the Ferris wheel, the dragon and the map of China that are mentioned in the former parts.

If the coordinates of a point A (x, y, z) in the space is known, then the coordinates of point A'(x, y, z) after rotating around the axis y=0, z=0 for an angle  can be calculated by the following formula



In this way we can successfully calculate the coordinates of terminal point. According to the formula, we can also calculate the path functions, which the designs rotate around the axis y=76, z=150, as the following

 

In the functions above, the  represents the angle between the vertical axis of the starting point to the axis of rotation and the axis x=76, z=150.  represents the angle that the point rotates around the axis. The function between the angle  and time *t* is as the following



