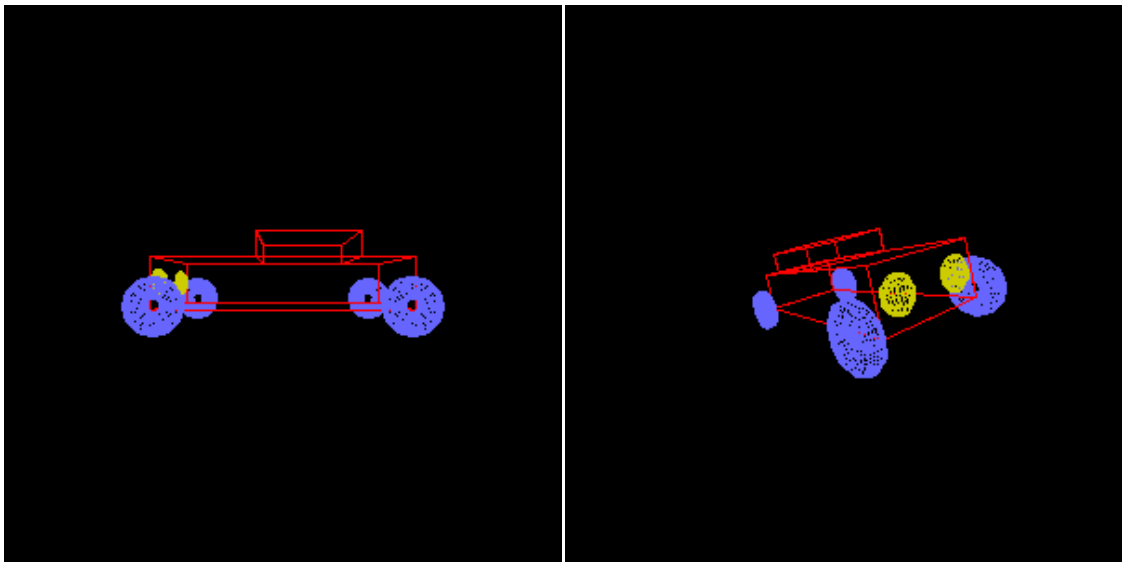
# Sheet 4

1. Write an OpenGL program to create a wireframe and solid model of a “car” object from several simple shapes. The car object is constructed from two red cubes, four blue toruses, and two yellow spheres (with appropriate transformations); (see the figures below).



2. Write an OpenGL program that rotates the four car wheels forward and backward.

3. Write an OpenGL program that moves the car model forward along the x-axis from right to left. When the car model reaches the most left, the program moves the car model backward with inversing the rotation direction of the wheels. Use orthographic projection.

4. Write an OpenGL program that moves the car model forward along the z-axis from the origin to -∞. When the car model moves out the camera frustum, the program moves the car model backward with inversing the rotation direction of the wheels. Use perspective projection.