Use the program Lecture 3 Demo 1.cpp.

1. In the reshape() function, in the gluPerspective() function call, change the field-of-view angle to 90°.

2. Change the field-of-view angle to 10°. After running the program, change it back to 45°.

3. Change the aspect ratio to 5.0. After running the program, restore it to its previous value.

4. Increase the distance to the near plane until the yellow cube no longer appears in the scene. Then change it back to 1.0.

5. Decrease the distance to the far plane until the yellow cube no longer appears in the scene. Then change it back to 1000.0.

6. In the setView() function, in the gluLookAt() function call, change the “up” vector from (0.0, 1.0, 0.0) to (1.0, 1.0, 0.0) and run the program. Then change it to (0.0, −1.0, 0.0). Then restore it to (0.0, 1.0, 0.0).

7. In the display() function, reverse the order of the setView() and drawAxes() function calls. What is the effect? Restore them to the their original order.

8. Change the value of zoomFactor to 2.0 and the values of yawIncr and pitchIncr to 10.0. What is the effect when you use the keyboard controls?