Use the program Lecture 7 Demo 1.cpp in the following exercises. In these exercises, modify the display() function only.

1. Translate the house 5 units to the left, 1 unit up, and 3 units back.

2. Apply two translations in a row. The first translation should move the house 3 units to the left and the second translation should move it 4 units to the right. What is the effect?

3. Rotate the house 90° clockwise about the x-axis.

4. Rotate the house 90° counterclockwise about the x-axis.

5. Rotate the house 90° (clockwise) about the x-axis, then 90° about the y-axis, then 90° about the z-axis. What is the effect? Could it have been accomplished by a simpler rotation?

6. Translate the house 5 units to the right, and then rotate it 90° about the y-axis.

7. Rotate the house 90° about the y-axis, and then translate it 5 units to the right. Is the result the same as in the previous exercise?

8. Translate the house 1 unit to the left, then rotate it 90° about the y-axis, then translate it 1 unit to the right. What is the effect?

9. Scale the house by factors \( s_x = 3.0, s_y = 0.5, s_z = 1.0 \).

10. Scale the house by factors \( s_x = 3.0, s_y = 0.5, s_z = 1.0 \), and then translate it 1 unit to the right.

11. Translate the house one unit to the right, and then scale it by factors \( s_x = 3.0, s_y = 0.5, s_z = 1.0 \). Is the result the same as in the previous exercise?