three.js Questions 1

Instructions:

Quickly, without looking at your computer screen, circle the digits in the understanding columns to rate the following statement for each substantive line of code. Answer the two questions for as many lines as you can, starting at the top.

The questions are:
   1) **I understand what this line does and its purpose in the larger program.**
      (**1** for completely disagree, **5** for completely agree)

	Understand	Source Code of the Example From Your Task
1	1 2 3 4 5	`if ( ! Detector.webgl ) Detector.addGetWebGLMessage();`
2		`var container;`
3		`var camera, scene, renderer, light, reflectCubeCamera;`
4		`var object1, object2, object3, object4, object5;`
5		`var controls;`
6		
7	1 2 3 4 5	`init();`
8	1 2 3 4 5	`animate();`
9	1 2 3 4 5	`function init() {`
10	1 2 3 4 5	`    container = document.getElementById( 'container' );`
11		
12	1 2 3 4 5	`    renderer = new THREE.WebGLRenderer();`
13	1 2 3 4 5	`    renderer.setSize( window.innerWidth, window.innerHeight);`
14	1 2 3 4 5	`    container.appendChild( renderer.domElement );`
15		
16	1 2 3 4 5	`    scene = new THREE.Scene();`
17	1 2 3 4 5	`    camera = new THREE.PerspectiveCamera(55, window.innerWidth/window.innerHeight, 1, 20000);`
18	1 2 3 4 5	`    camera.position.set( 60, 10, 100 );`
19		
20	1 2 3 4 5	`    light = new THREE.DirectionalLight( 0xffffff, 0.8 );`
21	1 2 3 4 5	`    light.position.set( - 30, 30, 30 );`
22	1 2 3 4 5	`    scene.add( light );`
23	1 2 3 4 5	`    var ambientLight = new THREE.AmbientLight( 0x555555, 0.4 );`
24	1 2 3 4 5	`    scene.add( ambientLight );`
25		
26		
27	1 2 3 4 5	`    var geometry1 = new THREE.IcosahedronGeometry( 20, 0 );`
28	1 2 3 4 5	`    var material1 = new THREE.MeshPhongMaterial( {`
29	1 2 3 4 5	`        shininess: 20,`
30	1 2 3 4 5	`        specular: 0xffff00,`
31	1 2 3 4 5	`        side: THREE.DoubleSide`
32		`    } );`

```
33  1 2 3 4 5          object1 = new THREE.Mesh( geometry1, material1 );
34  1 2 3 4 5          object1.position.x = -40;
35  1 2 3 4 5          scene.add( object1 );
36
37  1 2 3 4 5          var geometry2 = new THREE.TetrahedronGeometry (20);
38  1 2 3 4 5          var material2 = new THREE.MeshPhongMaterial( {
39  1 2 3 4 5              color: 0x555555,
40  1 2 3 4 5              emissive: 0x007700,
41  1 2 3 4 5              side: THREE.DoubleSide
42                      } );
43  1 2 3 4 5          object2 = new THREE.Mesh( geometry2, material2 );
44  1 2 3 4 5          object2.position.x = 40;
45  1 2 3 4 5          scene.add( object2 );
46
47  1 2 3 4 5          var geometry3 = new THREE.SphereGeometry(15, 20, 50);
48  1 2 3 4 5          reflectCubeCamera = new THREE.CubeCamera( 0.1, 5000, 512 );
49  1 2 3 4 5          reflectCubeCamera.position.x = 0;
50  1 2 3 4 5          reflectCubeCamera.position.z = 20;
51  1 2 3 4 5          scene.add( reflectCubeCamera );
52  1 2 3 4 5          reflectCubeCamera.update( renderer, scene );
53  1 2 3 4 5          var material3 = new THREE.MeshBasicMaterial( {
54  1 2 3 4 5              color:  0xffffff,
55  1 2 3 4 5              envMap: reflectCubeCamera.renderTarget.texture
56                      } );
57  1 2 3 4 5          material3.envMap.mapping = THREE.CubeReflectionMapping;
58  1 2 3 4 5          object3 = new THREE.Mesh( geometry3, material3 );
59  1 2 3 4 5          object3.position.x = 0;
60  1 2 3 4 5          object3.position.z = 20;
61  1 2 3 4 5          scene.add( object3 );
62
63  1 2 3 4 5          var geometry4 = new THREE.TorusGeometry(10);
64  1 2 3 4 5          var material4 = new THREE.MeshBasicMaterial( {
65  1 2 3 4 5              color: 0x8f0f5f
66                      } );
67  1 2 3 4 5          object4 = new THREE.Mesh( geometry4, material4 );
68  1 2 3 4 5          object4.position.x = 10;
69  1 2 3 4 5          object4.position.z = 50;
70  1 2 3 4 5          scene.add( object4 );
71
72  1 2 3 4 5          var geometry5 = new THREE.ConeGeometry(10,10);
73  1 2 3 4 5          var material5 = new THREE.MeshPhongMaterial( {
74  1 2 3 4 5              color: 0xf794f0,
75  1 2 3 4 5              opacity: .8,
76  1 2 3 4 5              transparent: true,
77  1 2 3 4 5              side: THREE.DoubleSide
```

```
78                       } );
79  1 2 3 4 5        object5 = new THREE.Mesh( geometry5, material5 );
80  1 2 3 4 5        object5.position.x = -40;
81  1 2 3 4 5        object5.position.z = 50;
82  1 2 3 4 5        scene.add( object5 );
83
84  1 2 3 4 5        controls = new THREE.OrbitControls( camera, renderer.domElement );
85  1 2 3 4 5        controls.target.set( 0, 10, 0 );
86  1 2 3 4 5        camera.lookAt( controls.target );
87                }
88
89  1 2 3 4 5    function animate() {
90  1 2 3 4 5        requestAnimationFrame( animate );
91  1 2 3 4 5        var time = performance.now();
92  1 2 3 4 5        object1.rotation.y = time / 1000;
93  1 2 3 4 5        object2.rotation.y = time / 1000;
94  1 2 3 4 5        object4.rotation.y = time / 1000;
95  1 2 3 4 5        object5.rotation.y = time / 1000;
96  1 2 3 4 5        reflectCubeCamera.update( renderer, scene );
97  1 2 3 4 5        renderer.render( scene, camera );
98                }
```

three.js Questions 2

Write one or more sentences in answer to the following two questions. You may reference your code and the example code from this task.

1) What information or strategies did you find most helpful?

2) What additional information would you have wanted?