**Question 8**

**Teal Transparent Plane**

Since this object has no rigidbody it won’t drop due to gravity and it won’t be affected by other objects, but the collider will still be used to stop objects with colliders as well (acting like a floor).

**Blue Sphere**

It doesn’t have a rigidbody component, so it just sits there at the (-3, 1, -3) position

**Red Sphere**

Since this sphere has a rigidbody that is set to use gravity and is kinematic (can get affected by the physics engine), so it will drop to sit on the teal plane due to its collider. Also, since it is not kinematic the moving orange capsule is able to push it.

**Red Sphere 2**

Like the blue sphere, since it has no rigidbody, it isn’t affected by physics, so it just sits at its set position.

**Green Sphere**

It looks like the green sphere is sitting on top of the teal plane, however it doesn’t have a rigidbody so, like the blue sphere, it just sits at its set position.

**Yellow Cube**

Since this cube has no rigidbody, it sits at its set position. The script, “RotateIt” is affecting this object to rotate 30 degrees on the x-axis, 60 degrees on the y-axis, and 90 degrees on the z-axis per second.

**Orange Capsule**

The capsule has a rigidbody component with gravity and is kinematic. This means, if the plane were to not be there it wouldn’t drop because the fact that is kinematic makes it so it’s not affected by physics i.e. gravity. The only way to interact with a kinematic object is through scripts, this is where the “MoveIt” script comes in. Since it is attached to the capsule, it moves along the x-axis between (3,0,0) and (-3,0,0).

**Purple Sphere**

No rigidbody so it sits at its position. Is still affected by the “ResizeIt” script which makes it repeatedly increase in size by a scale of 1 until it is 4 times its size, then shrinks back down to its original position.

**White Sphere**

Has a rigidbody that is kinematic, making it unaffected by the physics. This means that even though it has a collider, it won’t get pushed by the orange capsule.

**White Sphere 2**

Has a rigidbody that uses gravity and is not kinematic. This makes it so the sphere drops to the teal plane then gets pushed by the orange capsule due to the colliders interacting. It also pushes the black cube while being pushed, however it doesn’t fall off the edge due to the grey cube stopping it with its collider.

**Grey Sphere**

Has a rigidbody that uses gravity and is not kinematic. This sphere falls due to the gravity physics and stop once it reaches the plane due to the colliders.

**Black Sphere**

Like the previous sphere, it has a rigidbody that uses gravity and is not kinematic, so it SHOULD act the same. However, this sphere also has its collider removed which means it cannot act with other objects that DO have a collider i.e. the plane, so it falls right there it.

**Cube**

Since it has not rigidbody it sits at its set position, however it still has its collider so it can interact with the White Sphere 2 that gets pushed towards it.

**Black Cube**

Has a rigidbody that is not kinematic and is not affected by gravity. It gets pushed due to it not being kinematic by the White Sphere 2, but it is rotated along its z-axis which pushes it up and away instead of just away, it continues this path due to it not being affected by gravity. Since it is pushed in this way, it also goes over the Cube that would’ve stopped it.