

## **Mission Demolition**

1. What is the role of the Sphere collider on the Slingshot object?
  - A Collider with *Is Trigger = true* is known as a *trigger*. Triggers are part of the physics simulation in Unity and send notifications when other colliders or triggers pass through them. However, other objects don't bounce off of triggers as they do normal colliders. You'll use this large spherical trigger to handle the mouse interaction with Slingshot.
2. What is the purpose of OnMouseEnter(), OnMouseExit()?
  - Output "Slingshot:OnMouseEnter()" or "Slingshot:OnMouseExit()" on Console pane. When the mouse is within the Slingshot Sphere it's output the enter.
3. How do you read from the left mouse button? The right mouse button?
  - OnMouseDown() and GetMouseButtonUp(0) is a built-in function to detect what is the current situation of the left mouse button (click or released)
  - As being said in the book that the left is basically the 0th button. Controlling the right mouse might be GetMouseButton(1)
4. Describe the basic set of steps to read a mouse click, continue to respond to the player (don't halt updates) and then figure out when the mouse is released
  - In this program, if the mouse is within a certain location and on click OnMouseDown() and when the mouse is released it would be GetMouseButtonUp(), this function has been built-in within this program to help programmer input the current situation of the mouse.
5. What is the purpose of Rigidbody.Sleep()
  - To make sure the GameObject is not moving (stable) before being hit.
6. How does Lerp perform it's task?
  - Lerp is use to gradually move an item (GameObject) from spot A to B.
    - i. Using the equalition of  $(b - a) * t$  -- according to Unity Scripting Doc
  - `public static Vector3 Lerp(Vector3 a, Vector3 b, float t);`
  - What if the value of  $t = 0$ ? Location of item would be at a (typically beginning)
  - What if value of  $t = 1$ ? Item location is at b (typically the end zone)

- What if value of  $t = 0.5$ ? Item location will at the mid point between a and b.

7. How do you change the transparency of an object in code?

- `Material mat = GetComponent<Renderer>().material;`
- `Color c = mat.color;`
- `c.a = 1;`
- `mat.color = c;`

8. What simple childhood past-time is a LineRenderer behaving like?

- Highlighter? I don't know.

9. What are the three paths through the AddPoint function in ProjectileLine.cs?

- Launch Point
- If the point is bigger than 0 but not far enough from the last point
- Normal behavior

10. There is no question number 10.

- Ok.