Calculating shadow cones involves determining the umbra and penumbra regions created by an object illuminated by a light source. The umbra is the fully shaded area where the light source is completely blocked, while the penumbra is the partially shaded area where the light source is only partially obscured. To find these regions, identify the light source (point or directional) and the object casting the shadow. In Unity, create a cone using ProBuilder and rotate it so the vertex is pointed away from the light source. To calculate the length of the umbra cone use the radius of the light source and radius of the object the shadow cone is on, in addition to the distance between the light source and object. The equation used is RS\*d/(RS+RO), which will give you the length the cone should be. To calculate the penumbras, create two cones and align their vertex to the edge of the base of the umbra cone. More information about how the equation was calculated can be found in the picture below.

