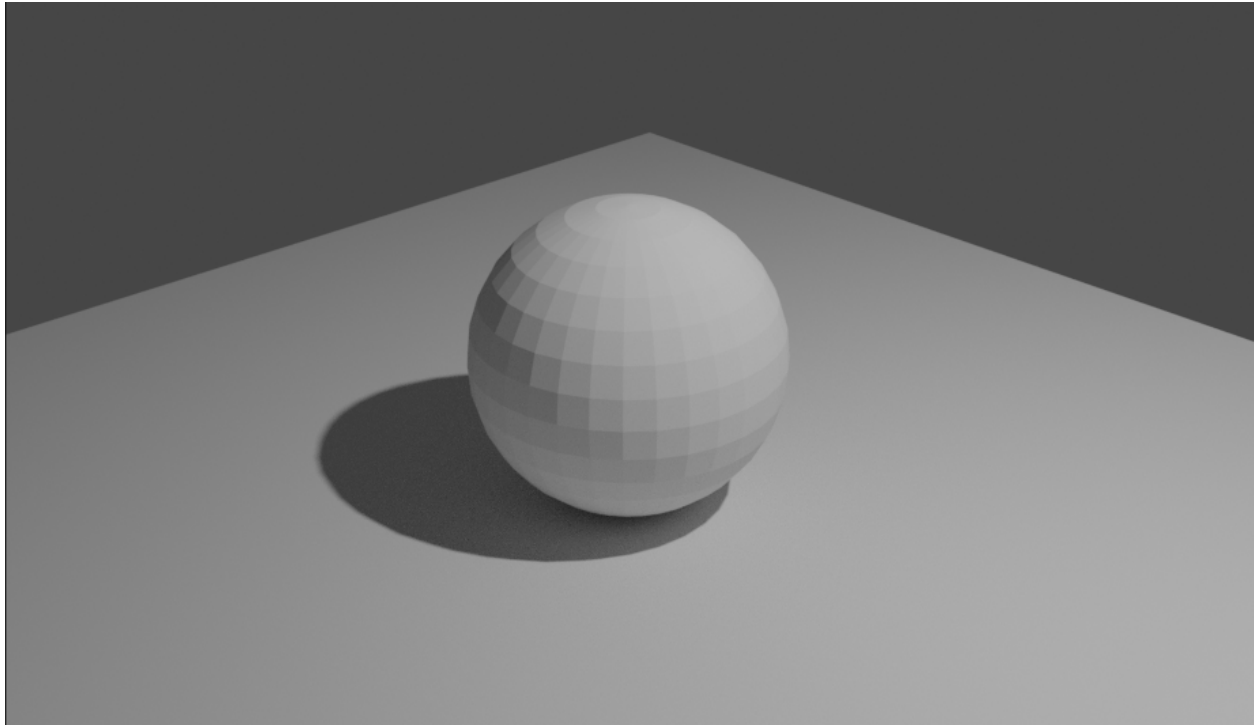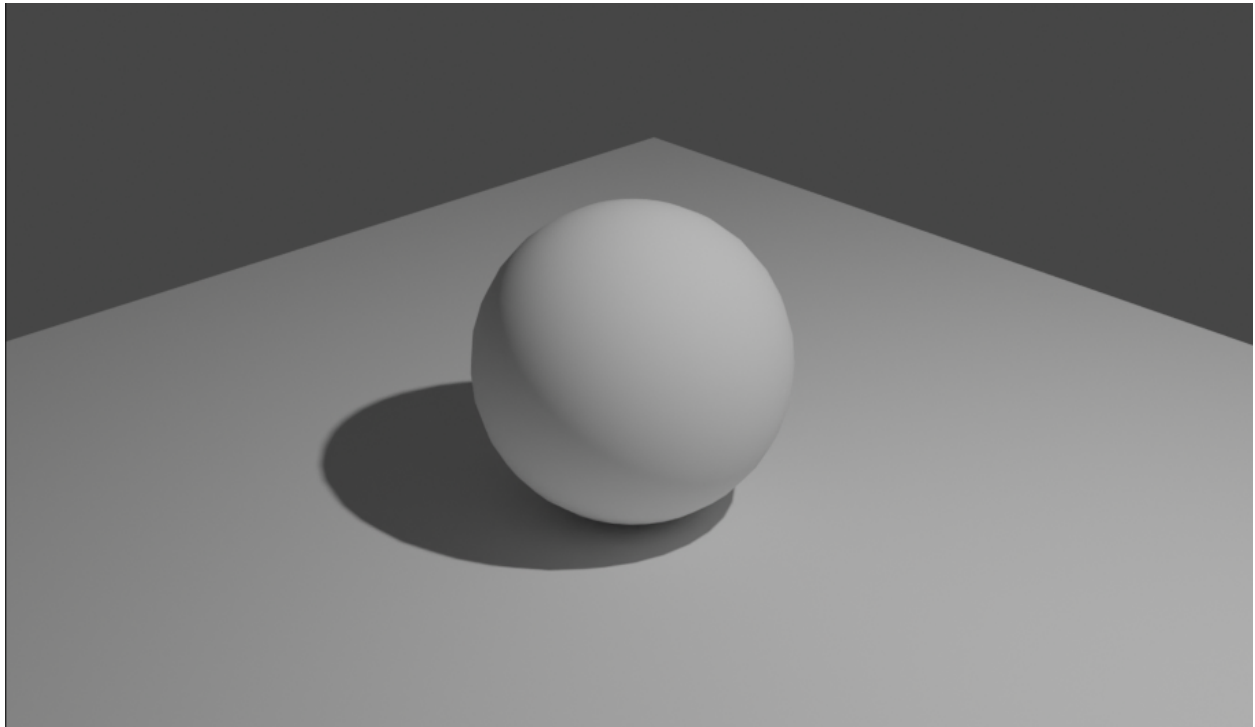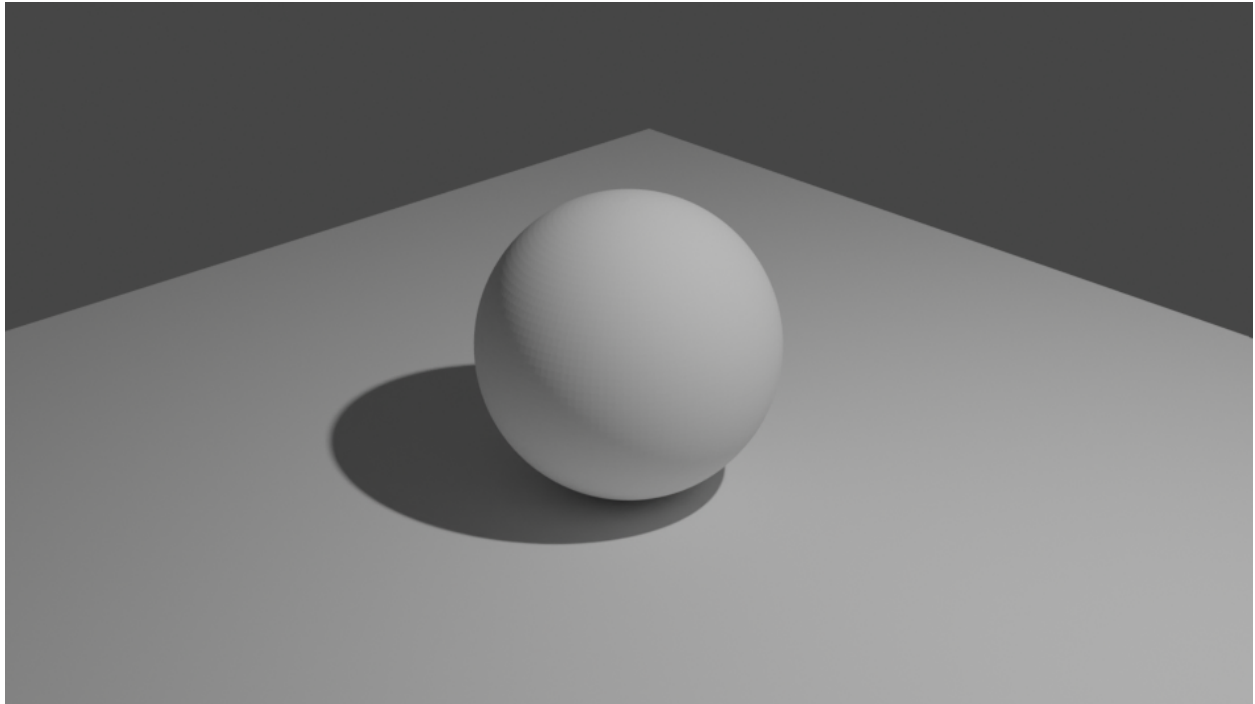Ben Riesett
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Checkpoint 1)
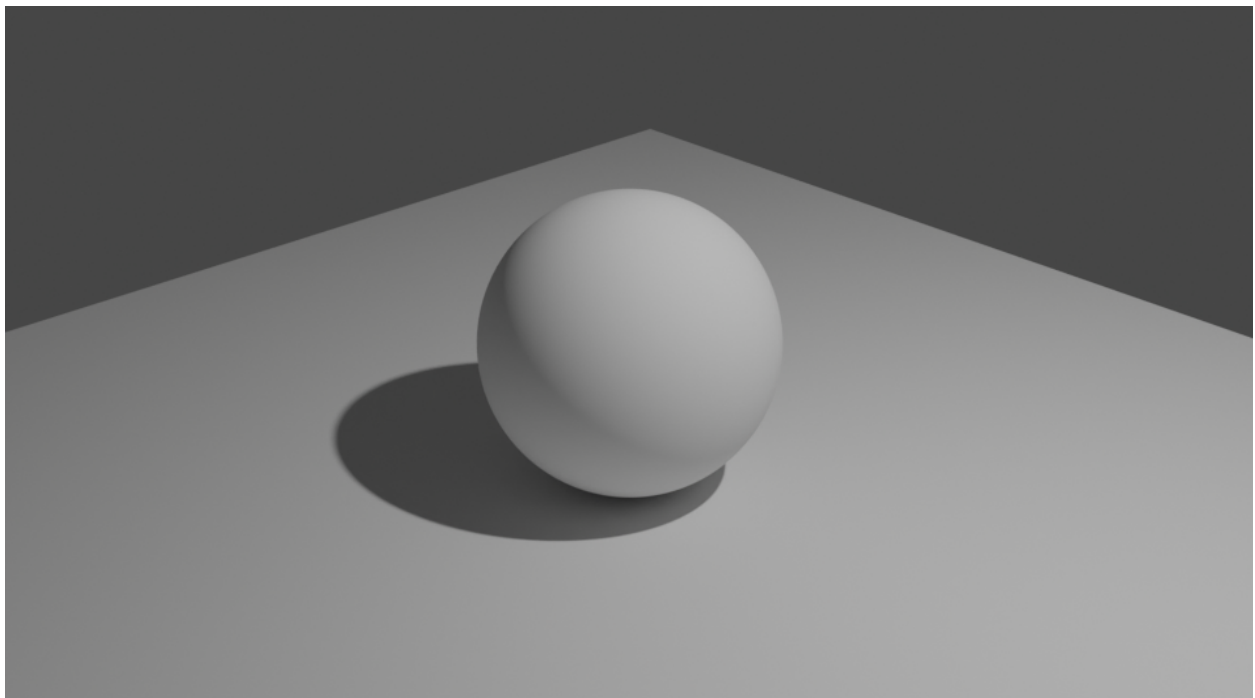Shade Flat

Shade Smooth

Smooth shading removed the edges to make it look like one continuous, smooth surface. This is particularly useful for curves and spheres.

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Subdivision + Shade Flat


Subdivision + Shade Smooth

Subdivision adds more vertices so even with the flat shading the sphere looks much more spherical because there are a larger number of vertices. Balancing subdivisions and smooth

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shading will allow a large amount of flexibility in rendering to achieve the level of complexity we want..
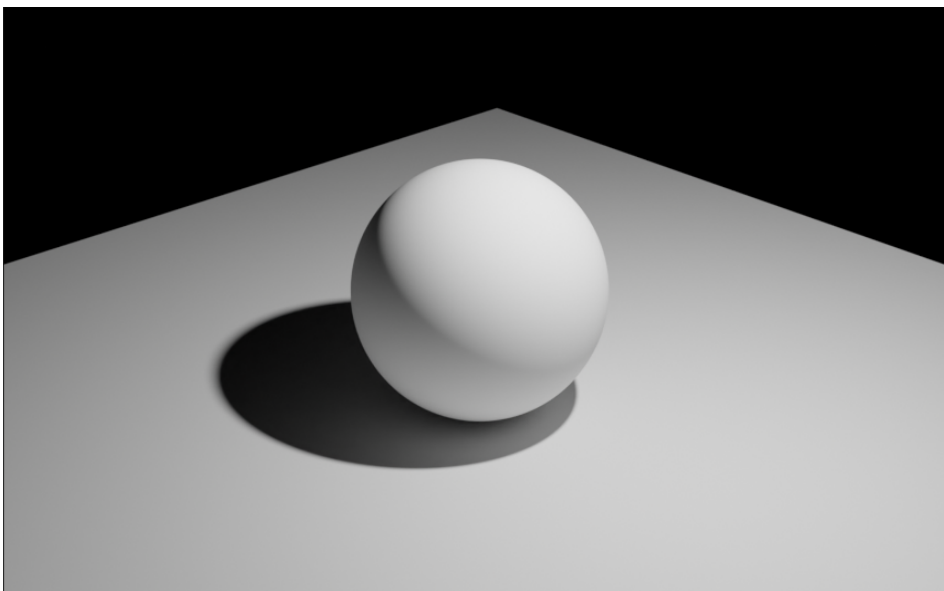
Checkpoint 2)
Lower light power 250 W
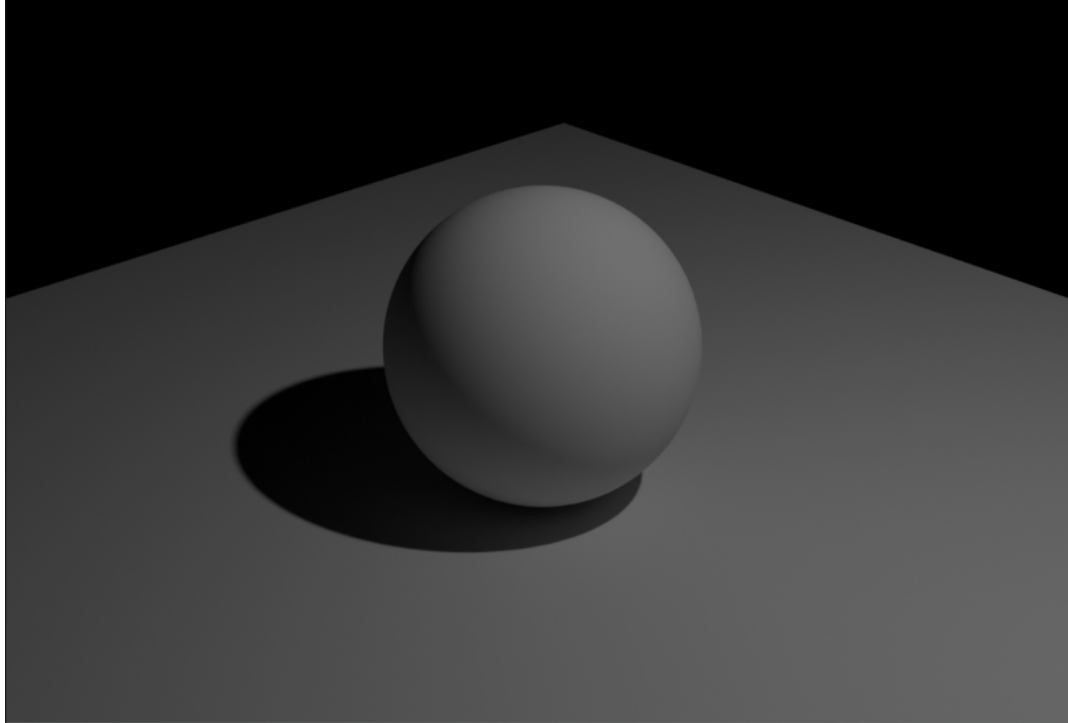
Comparing the lower light image to the image from Checkpoint 1.5, the R, G, and B values in the lower light image are ¼ of what they are in the 1.5 image. The A value stays consistent as 1.0. The higher the power, the brighter the image.
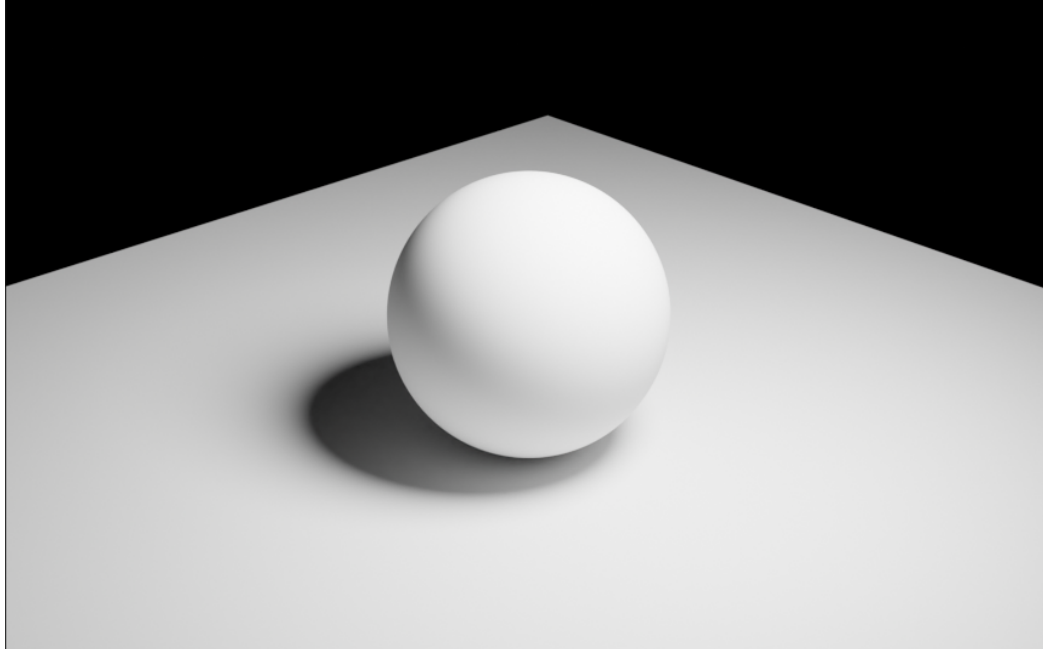
Image with closer light, power back to 1000W

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The image with the closer light makes the R, G, and B values about double of what they were from checkpoint 1.5. This is because the light is twice as close, with the same intensity as in checkpoint 1.5. The A value again stays at 1.0. The closer the light, the brighter the image.

Image with Area Light

The shadow with the area light has a gradient, where some parts of the shadow are darker than other parts. The shadow in the other renders with the point light has little to no gradient in the different parts of the shadow.

Checkpoint 3) Scene with Nishita Sky

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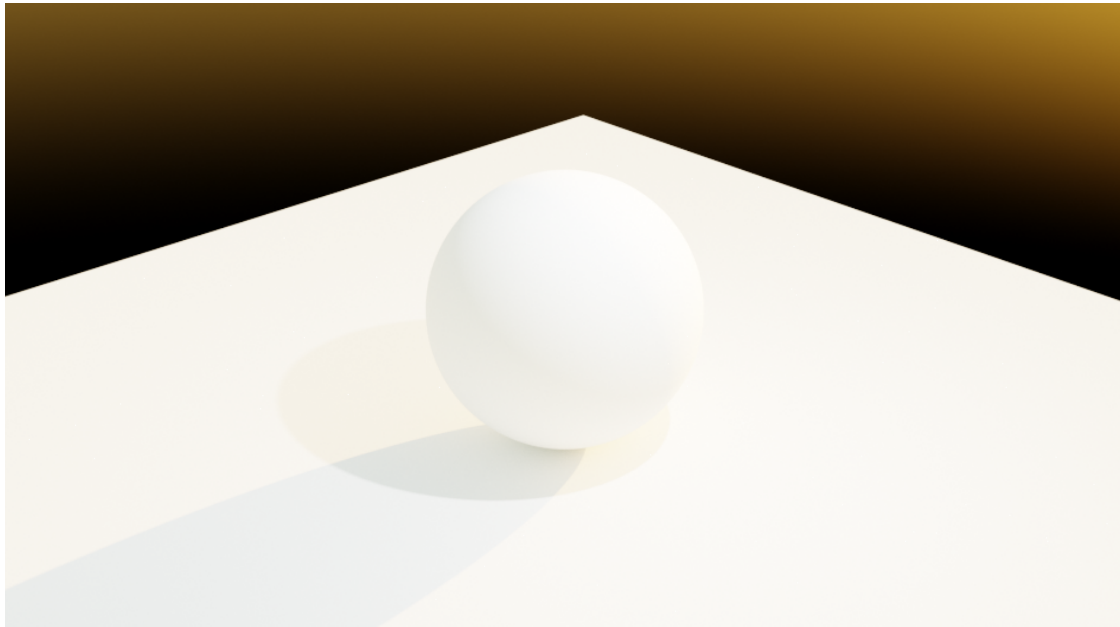
Checkpoint 4)

1. Sphere with translucent BSDF and plane with toon BSDF. Smooth shading used, size 0.592 for the plane. Toon BSDF rounded the edge of the plane. Translucent BSDF seems to make the sphere "glow" as the light passes through it.
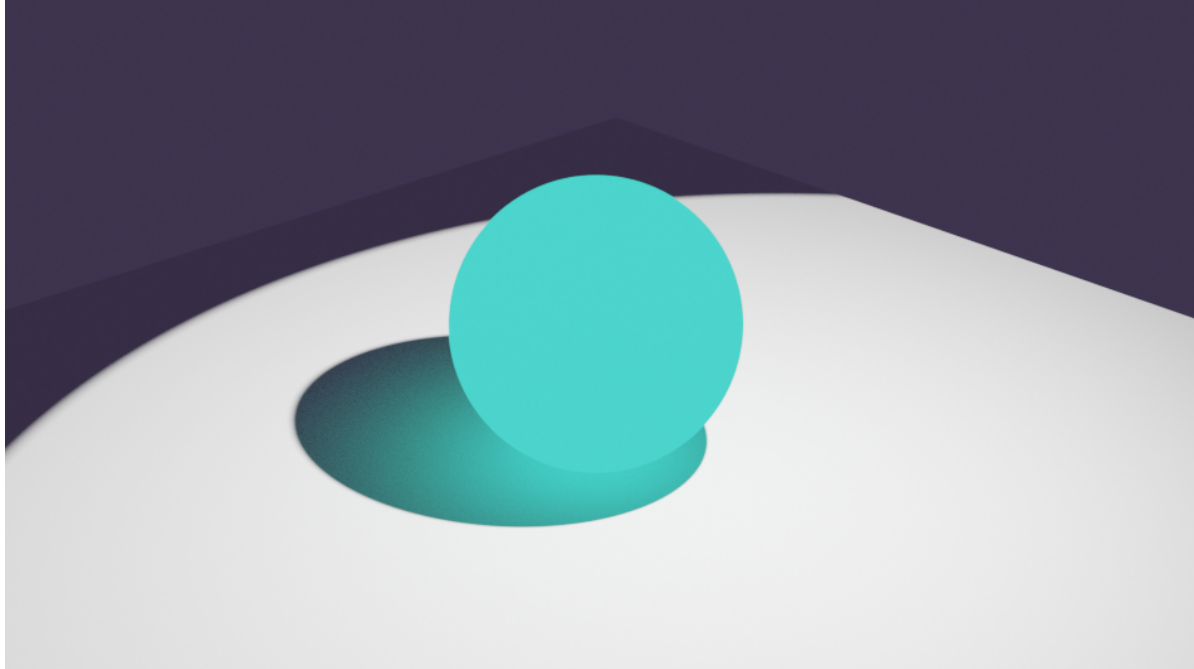
2. Sphere with glass BSDF and plane with hair BSDF. Hair BSDF seems to make the plain multiple shades. Also increased roughness to 0.412. Glass BSDF makes the sphere look like a glass ball, with the reflective and shiny shading of glass.

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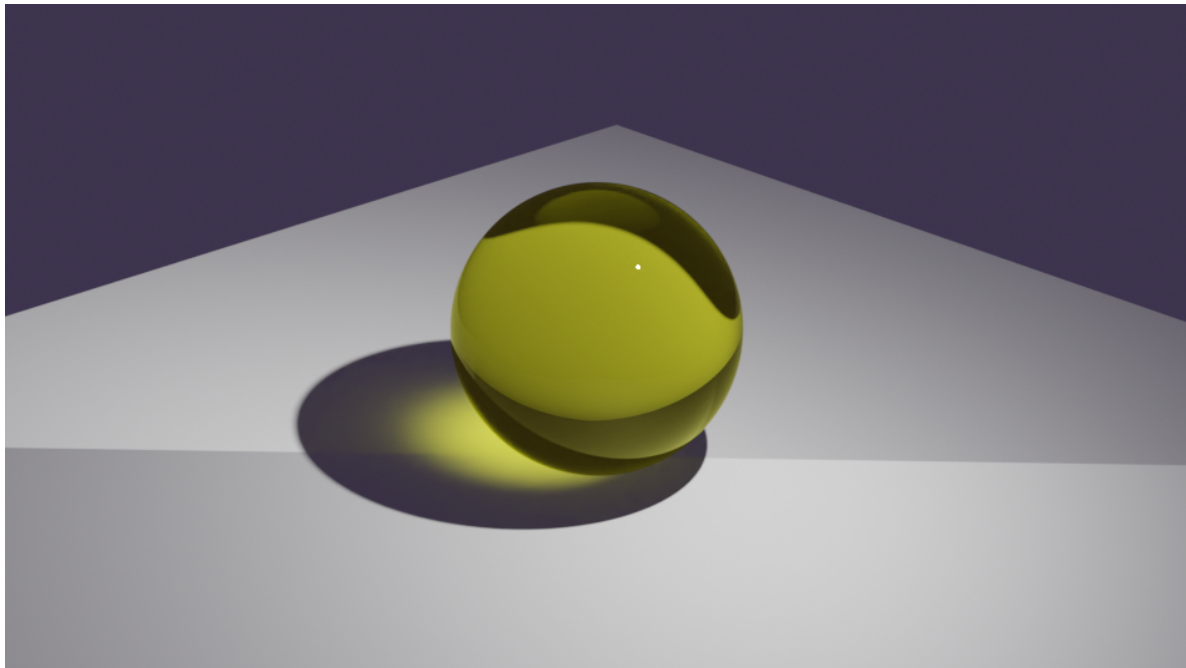
3. Sphere with Anisotropic BSDF and plane with Glossy BSDF. The glossy BSDF does what the name sounds like and makes the plane appear shiny, smooth, and glossy. Default values were used for both. Anisotropic BSDF is similar and adds a glossy-like reflection to the sphere. Smooth shading used.