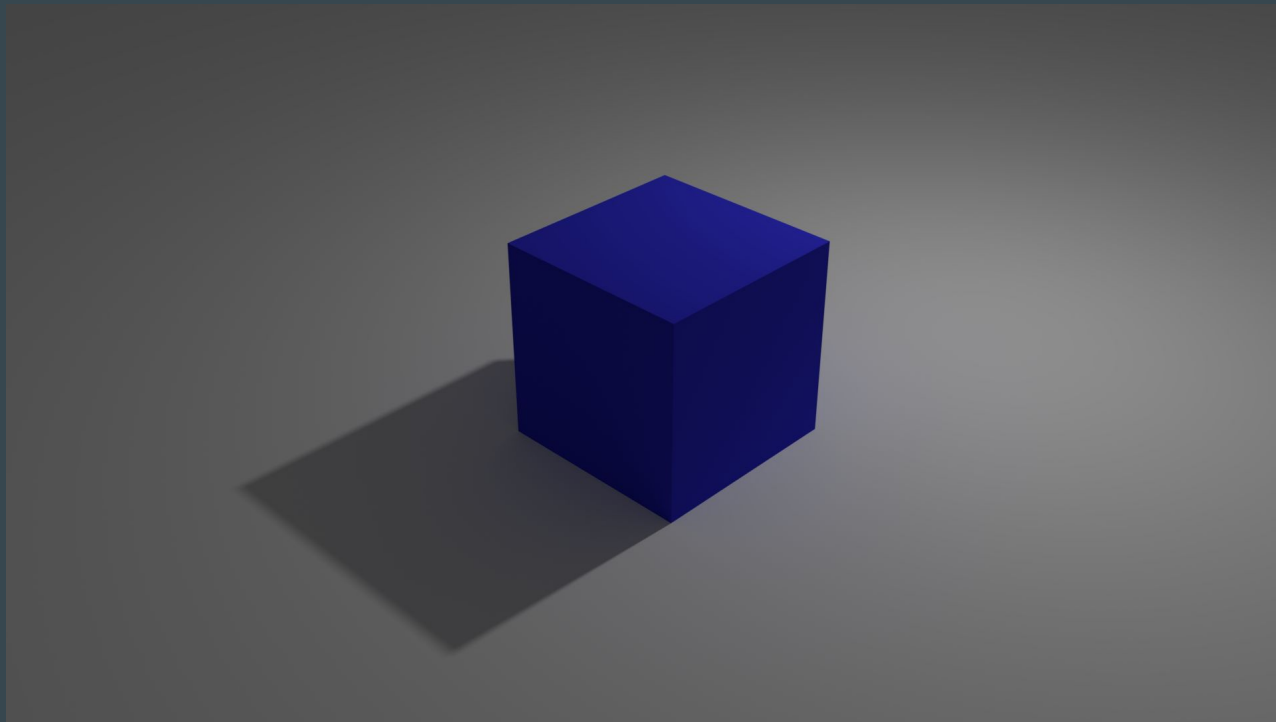


# Introduction to 3D



ElectronicArmory.com  
3D Game Development Course

# Hello World



# 3D Concepts

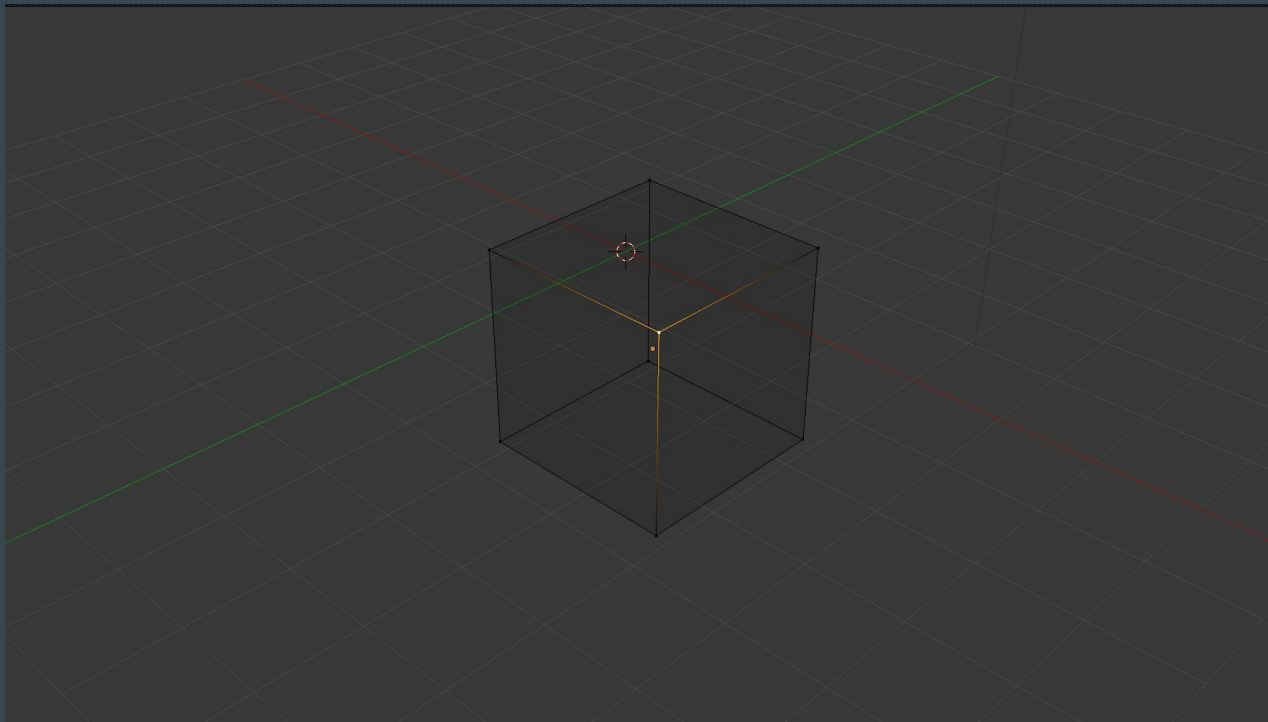
- Modeling Geometry (Meshes)
  - Vertices
  - Edges
  - Faces
- Lighting
- Texture/Material

# Vertices

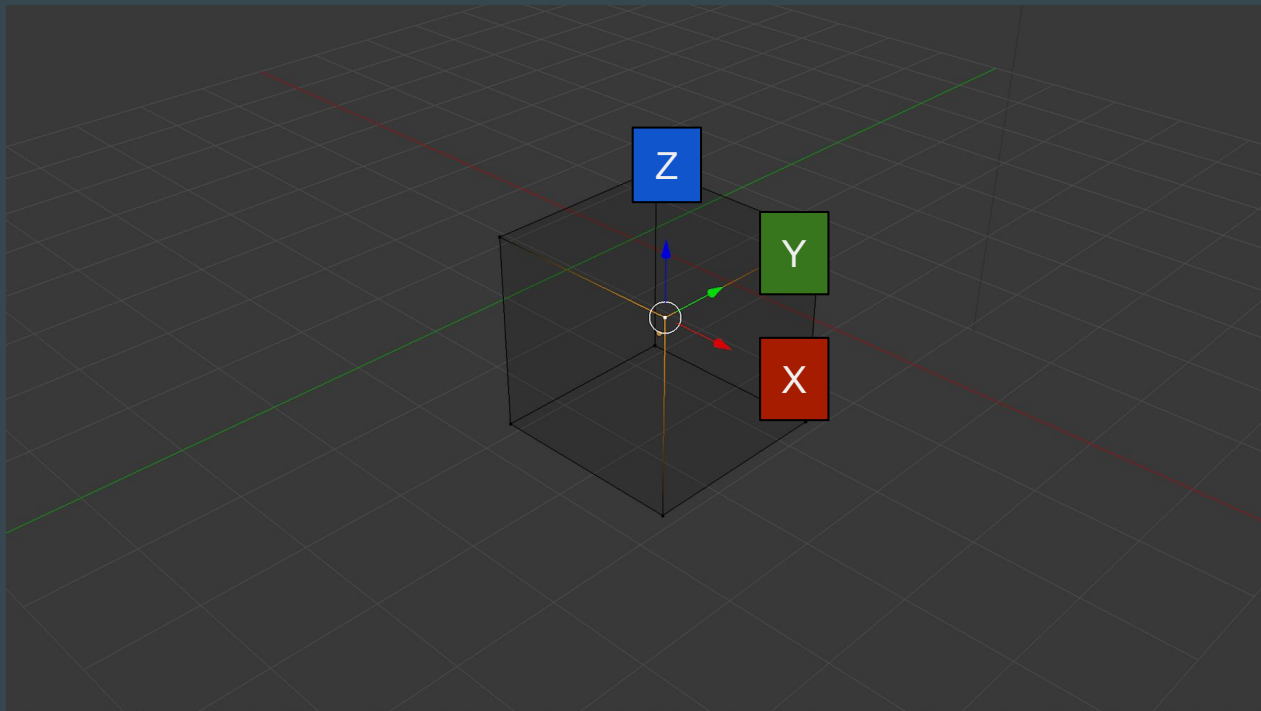
Points that occupy a specific coordinate in space.

In 3D space, vertices have an X, Y and Z coordinate:

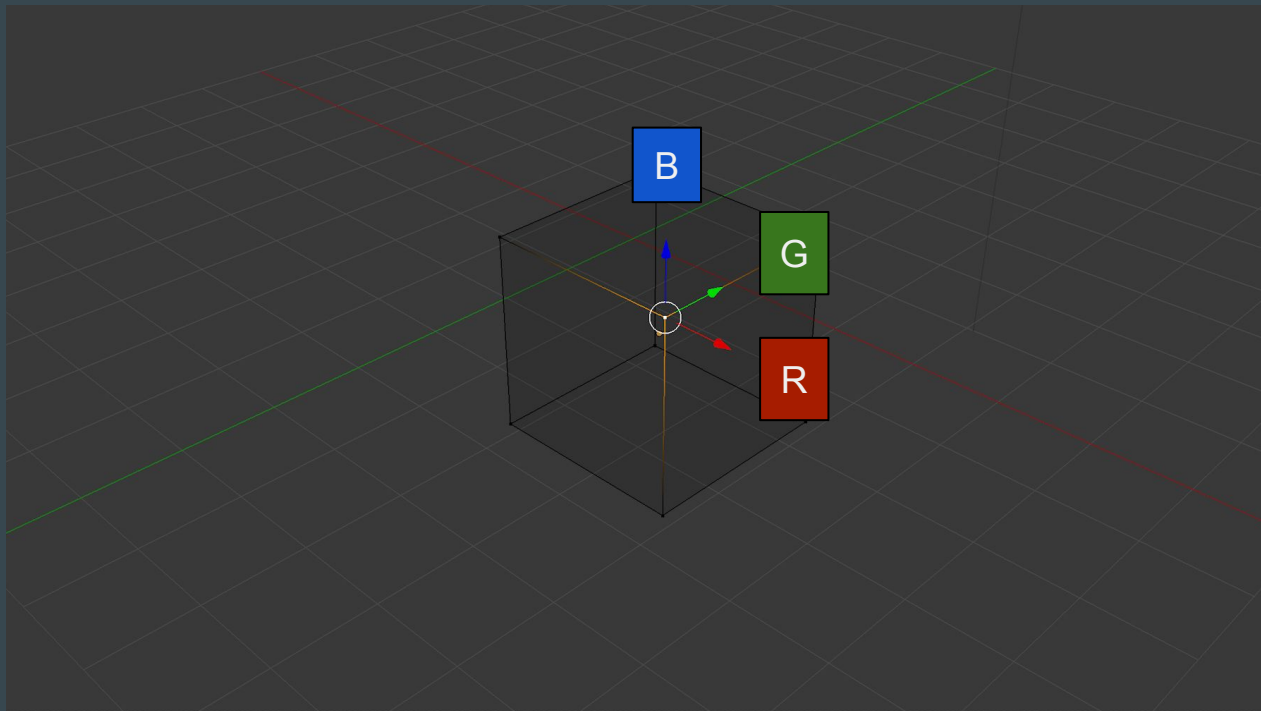
(3, 4, 19)



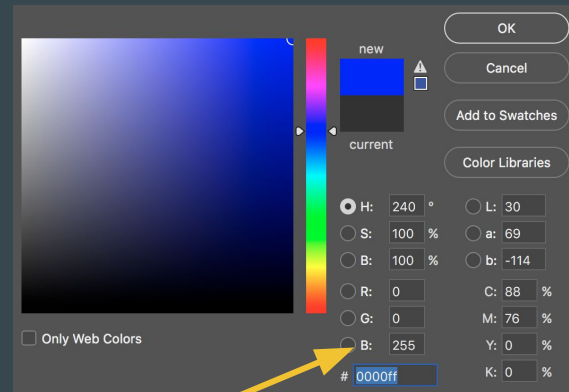
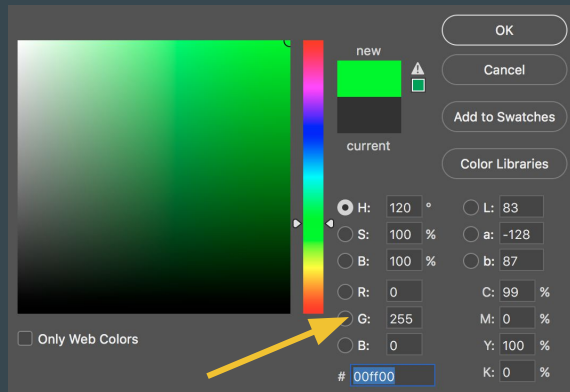
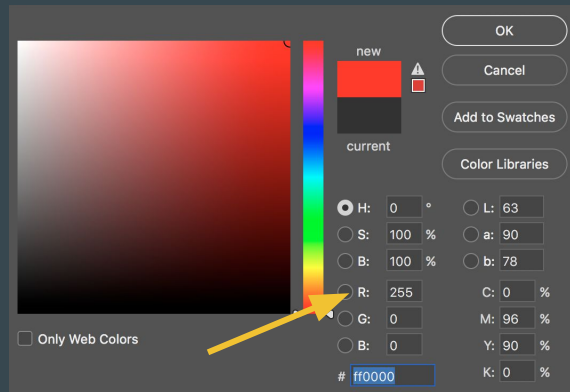
# 3D Axis



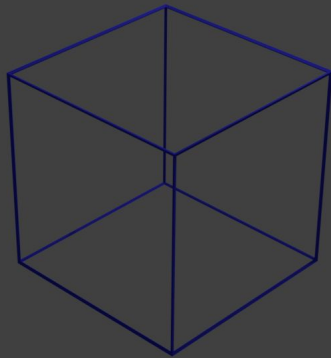
# 3D Axis - RGB



# RGB in Color Pickers

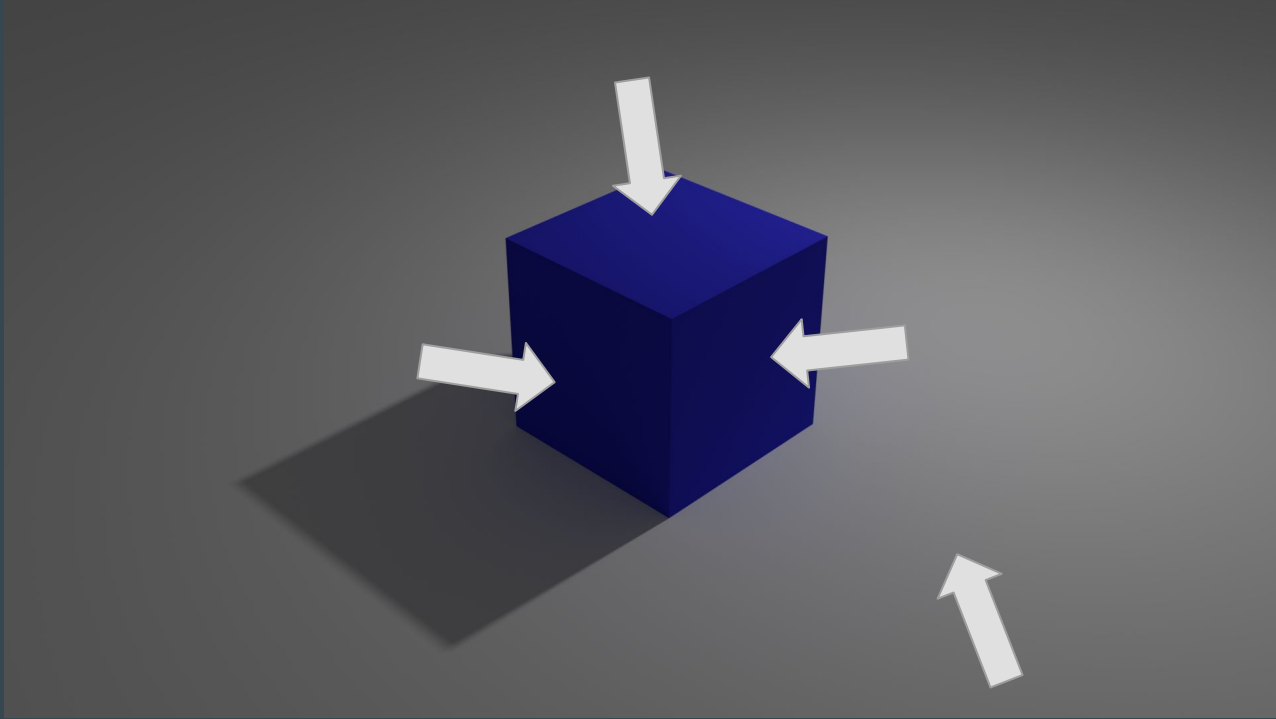


# Edges



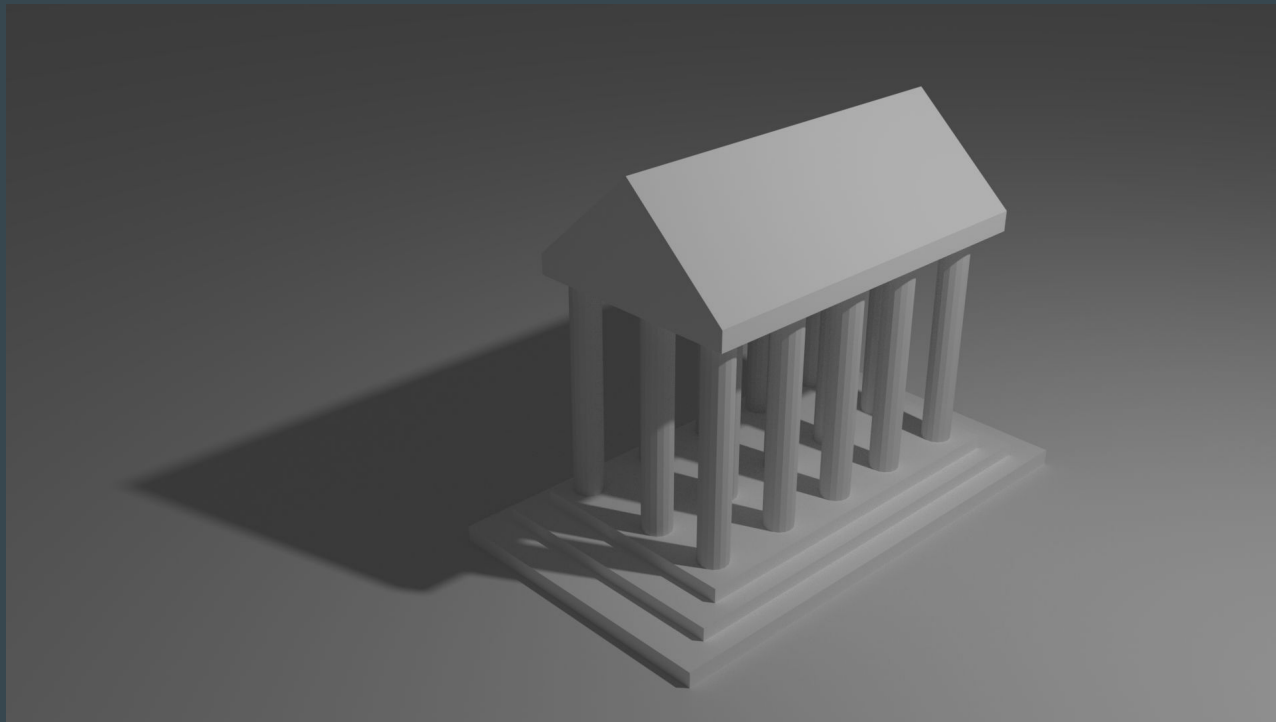


# Faces

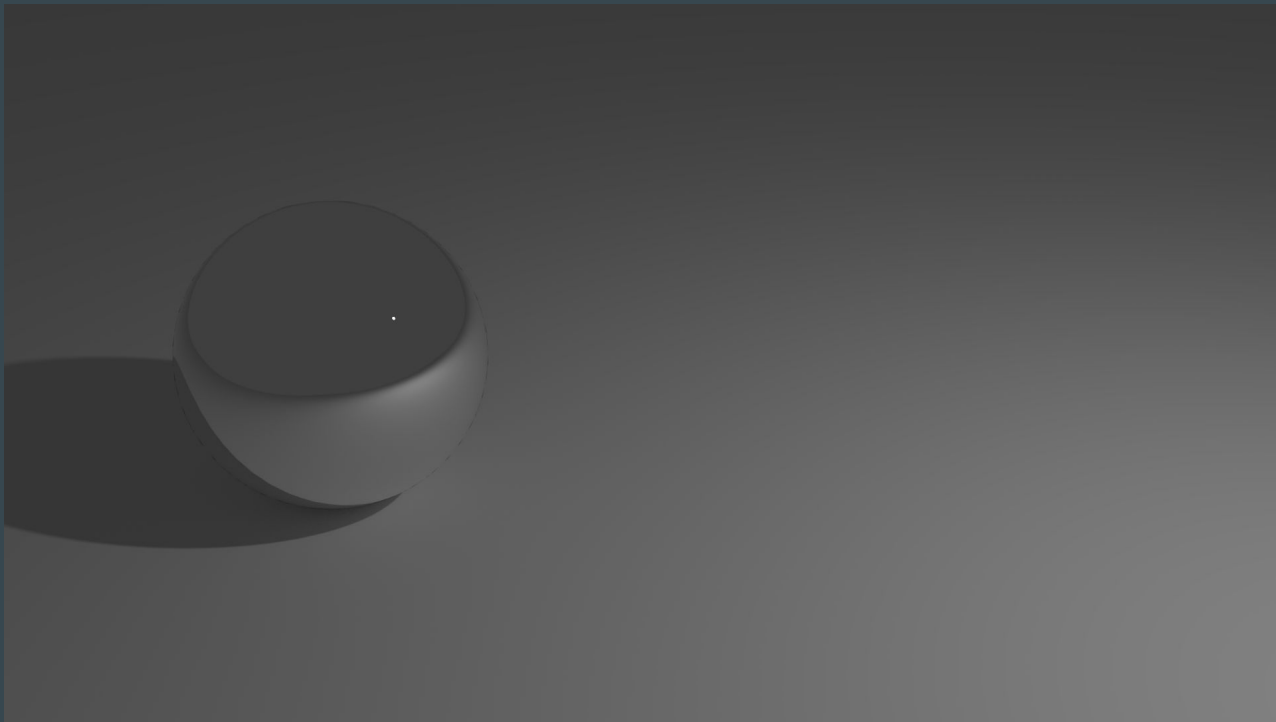


# Materials and Textures

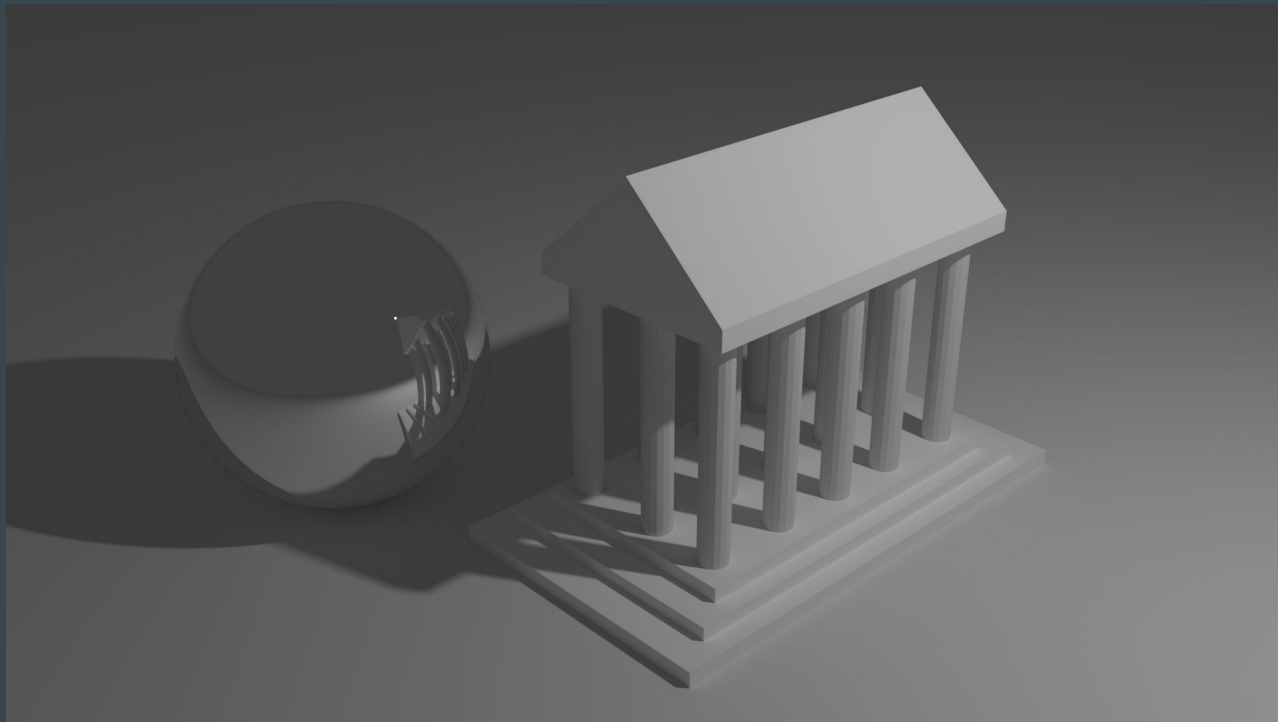
# Diffuse Material



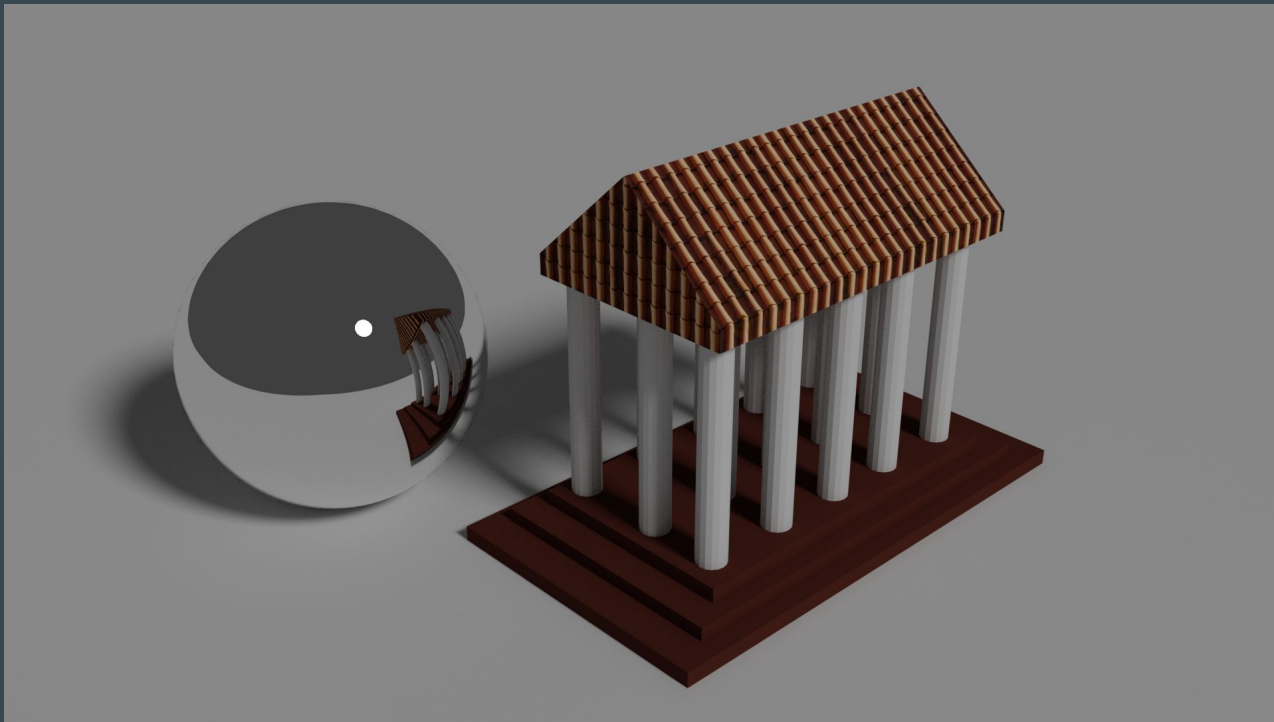
# Gloss



# Gloss and Diffuse Shading

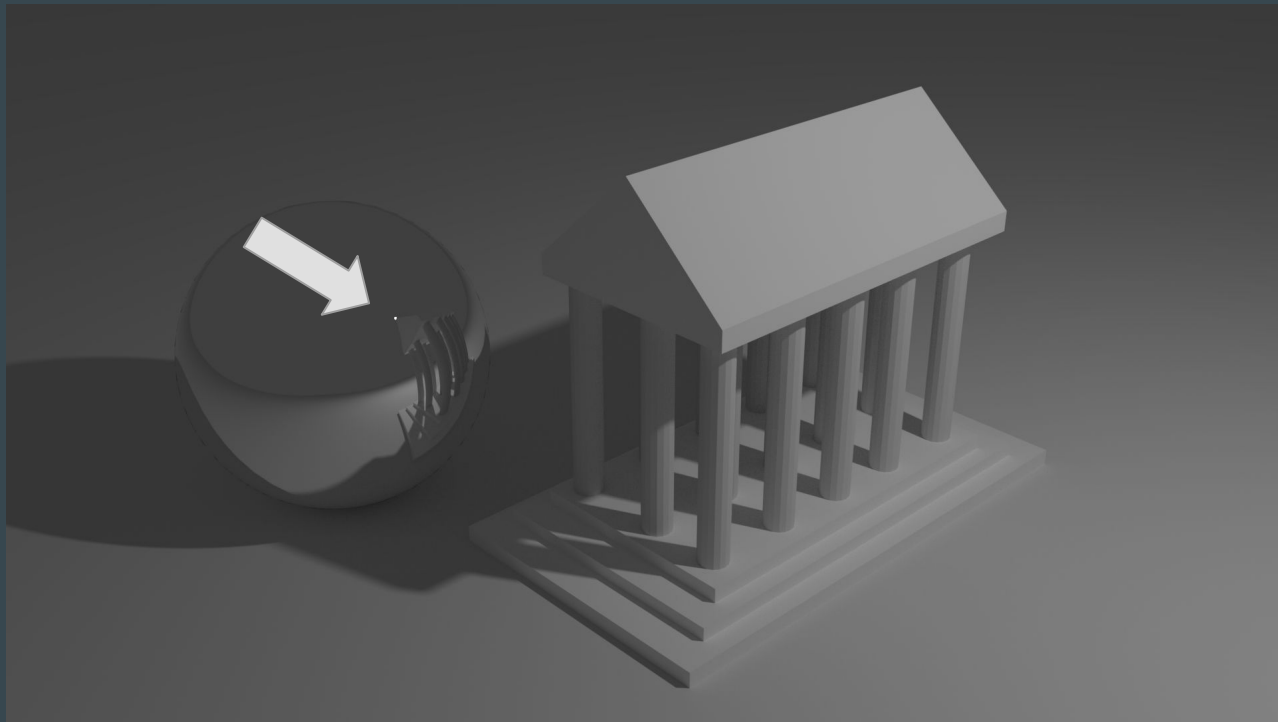


# Texture



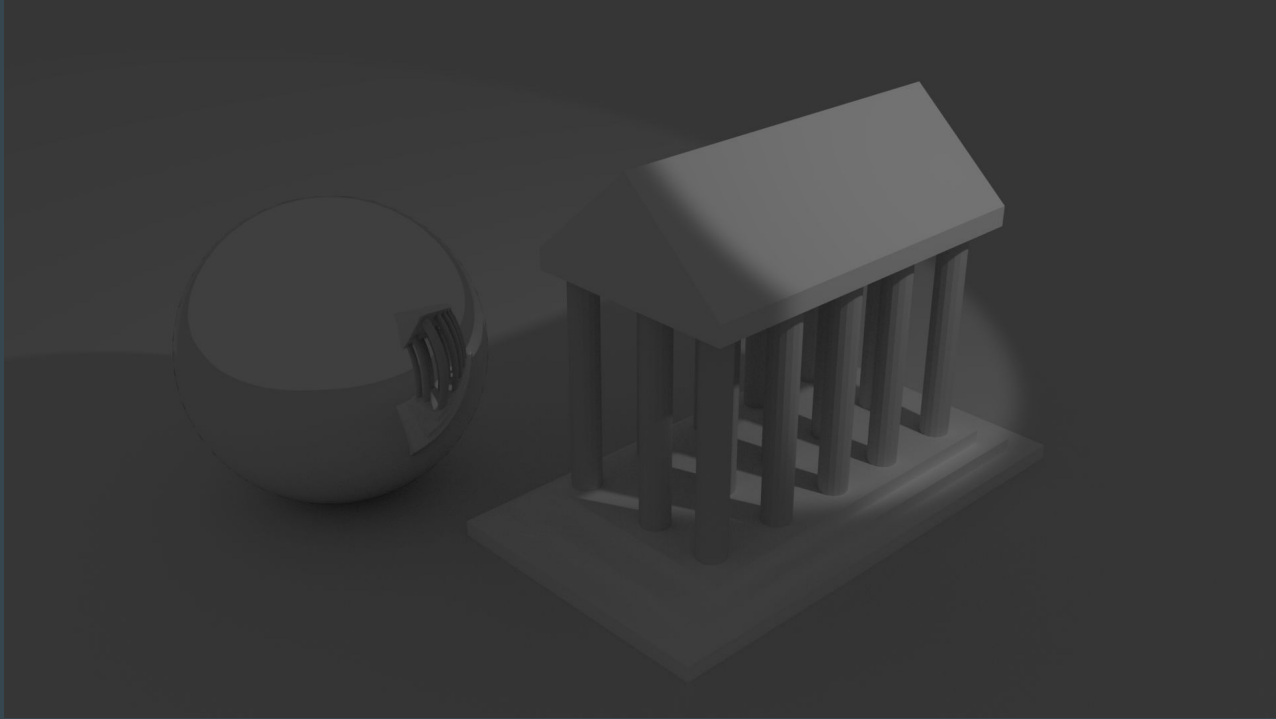
# Lighting

# Point Light

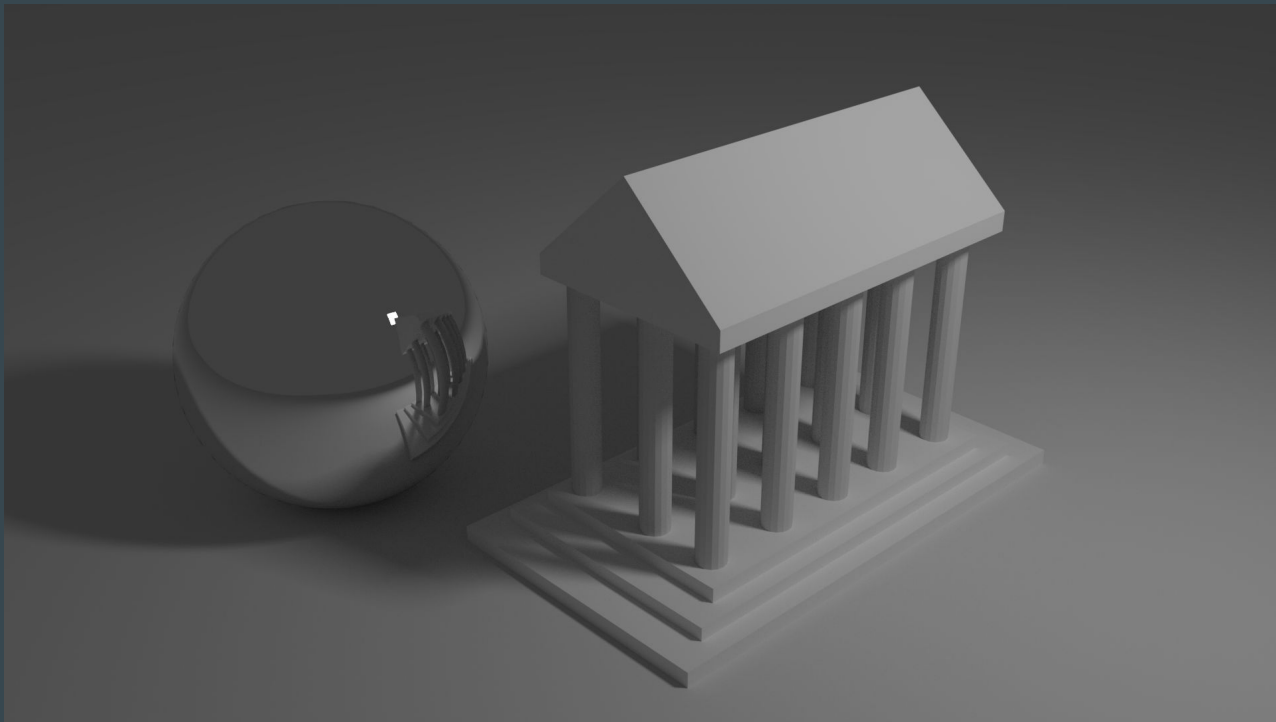




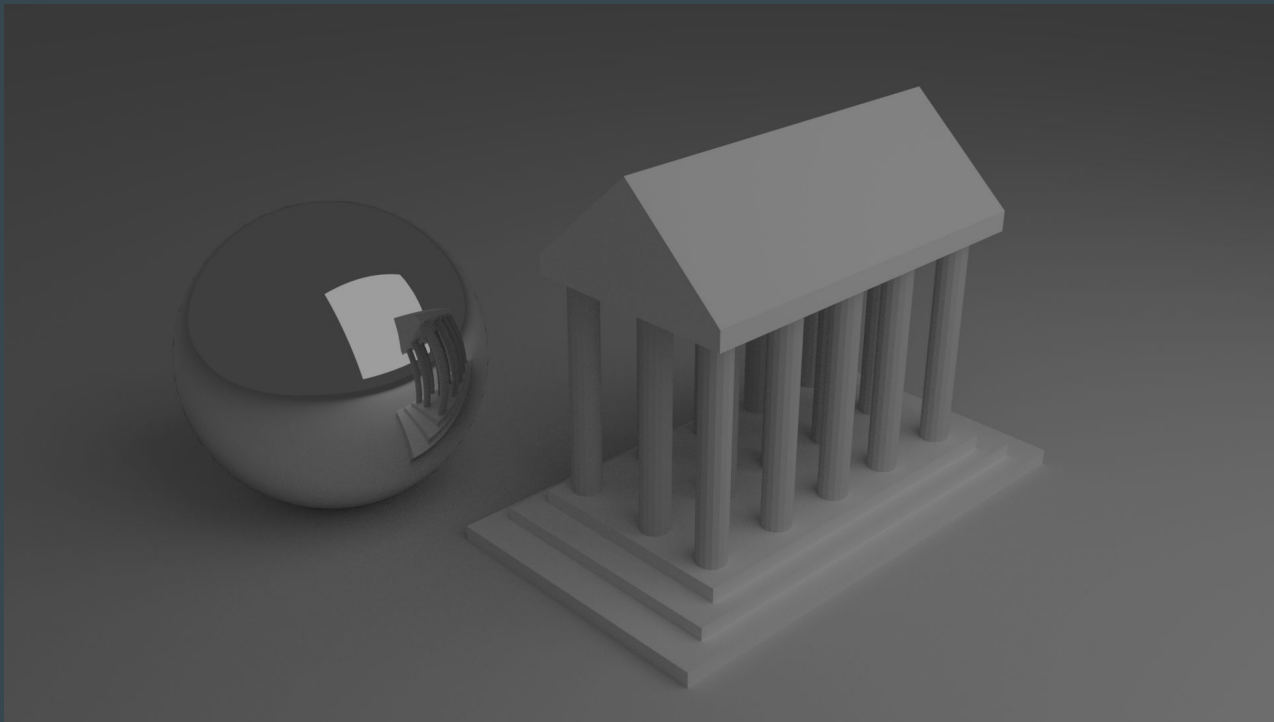
# Spot Light



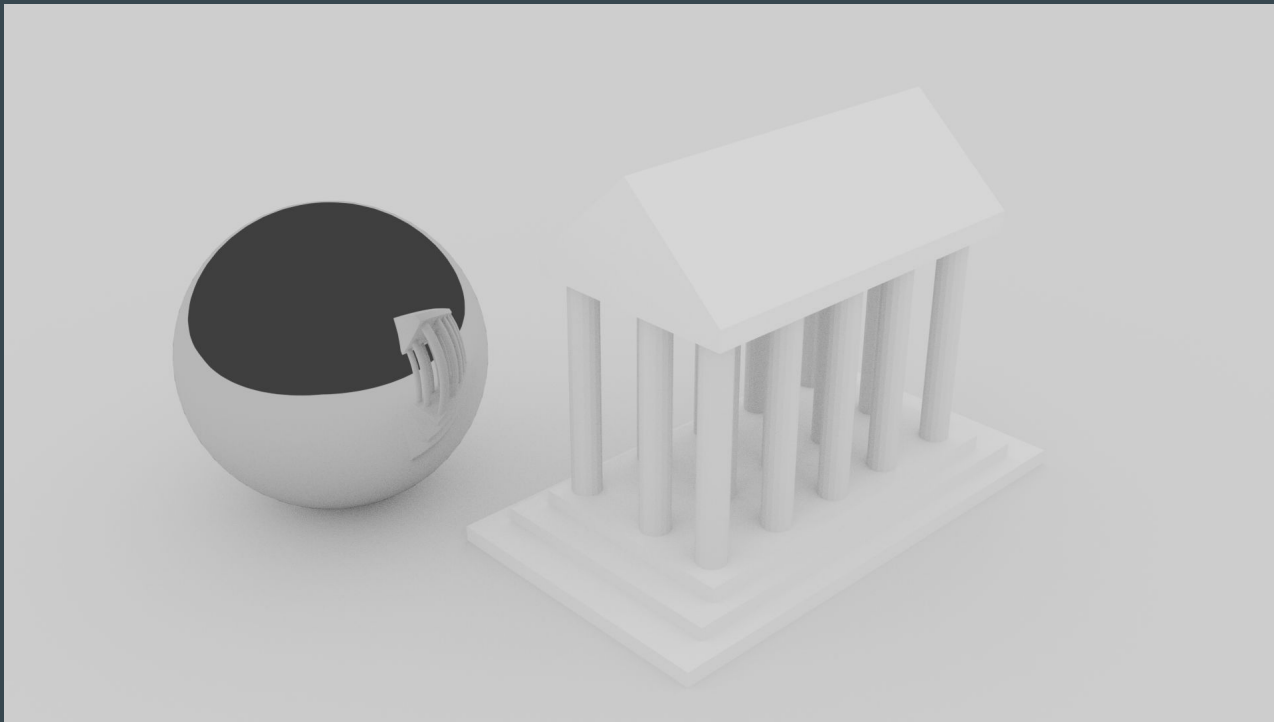
# Area Light - Small



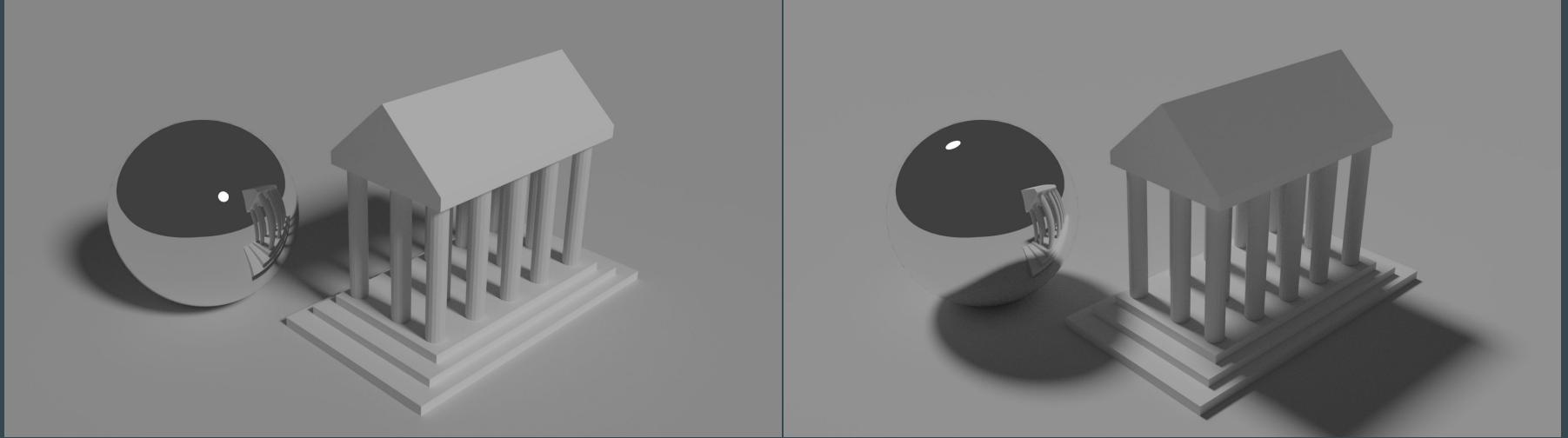
# Area Light - Large



# Global Illumination

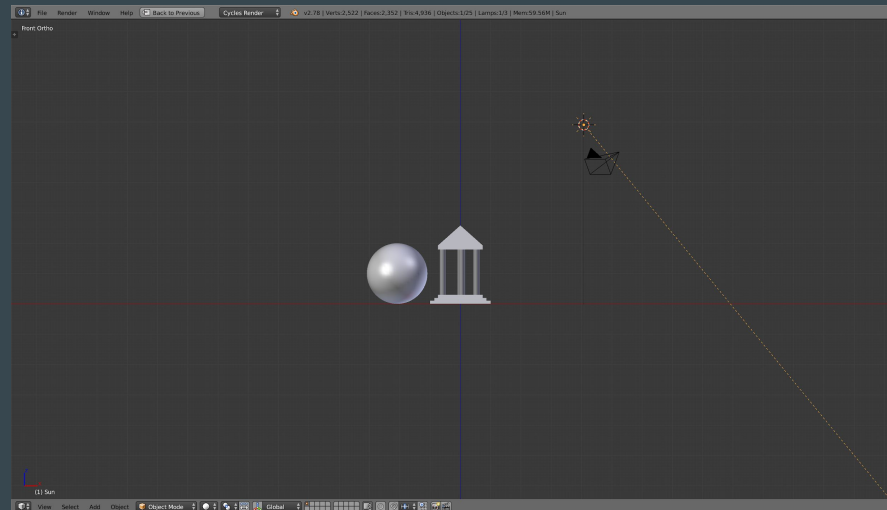
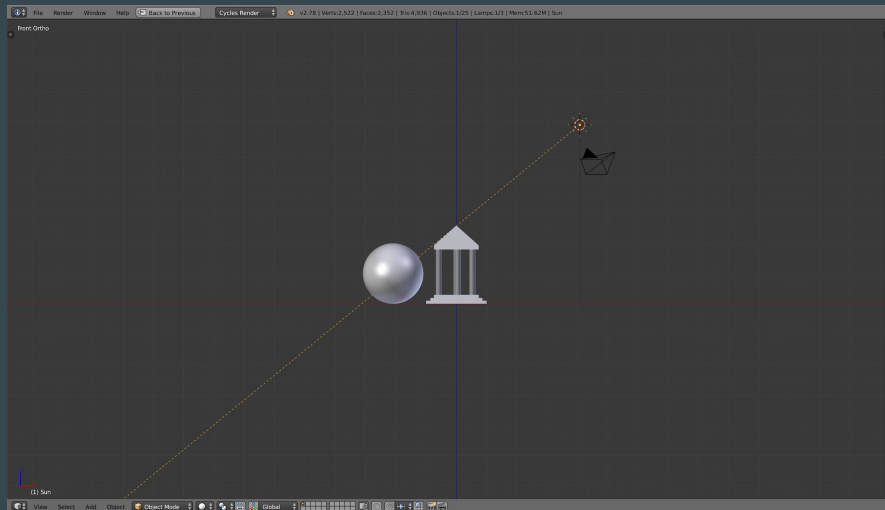


# Sun



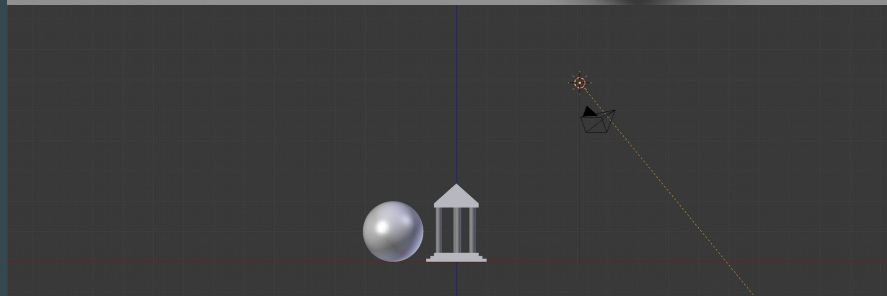
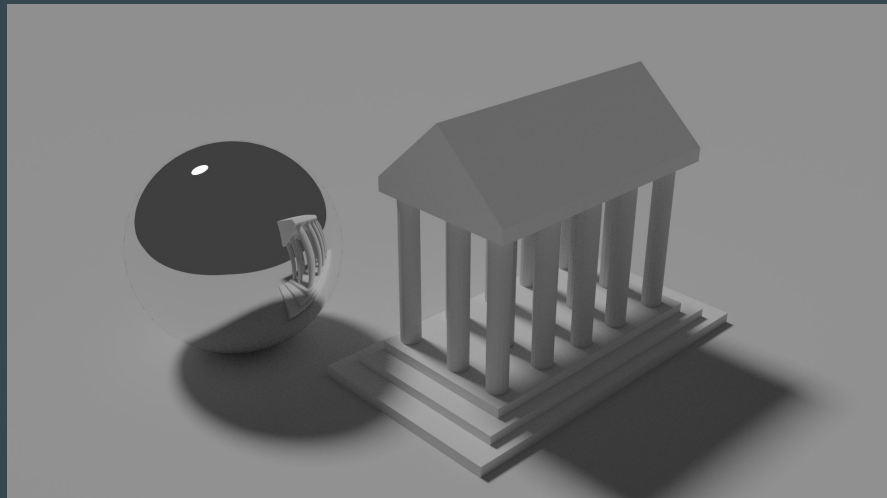
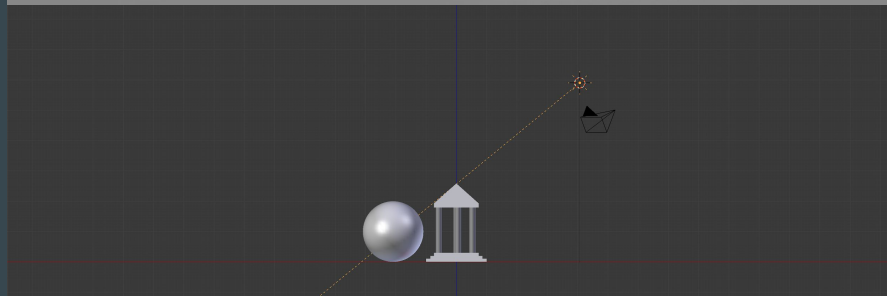
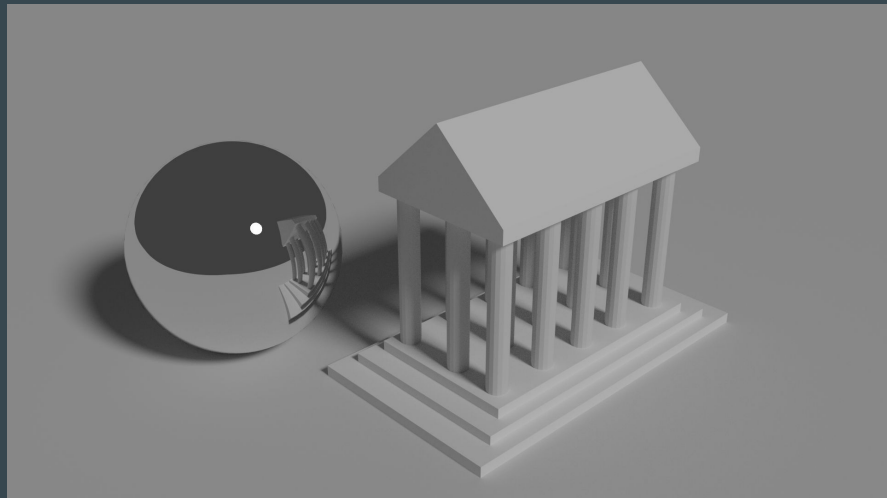
Sun lamps shine from all points in the same direction, independent of where the sun lamp is physically located. Image on the left is shining towards the left, while the image on the right is rotated 90s and shining to the right.

# Sun



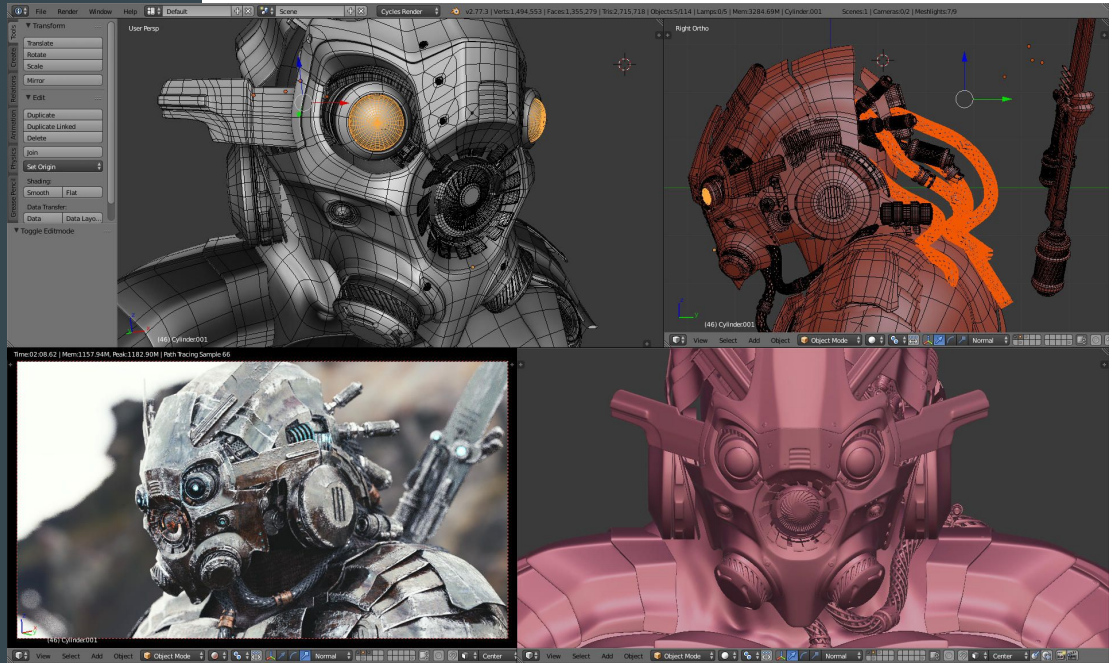
Sun lamps shine from all points in the same direction, independent of where the sun lamp is physically located. Image on the left is shining towards the left, while the image on the right is rotated 90s and shining to the right.

# Sun



# Demo

## Introducing Blender



<https://www.blender.org>