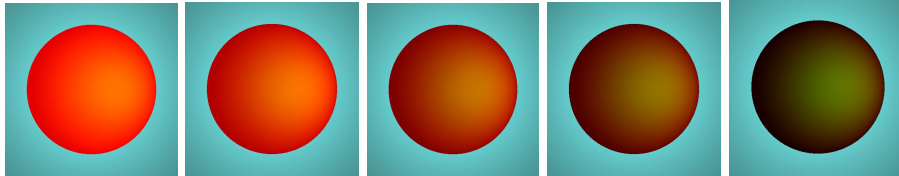


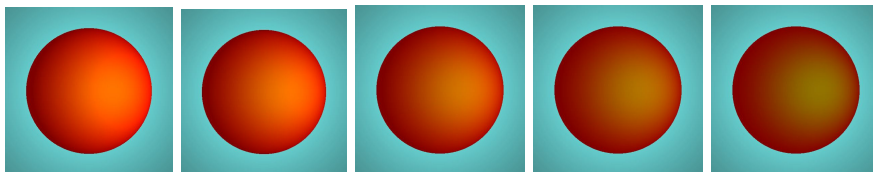
## CSci 5607 - Homework 1b

In all of the following comparisons when one parameter is changed the remaining are kept constant



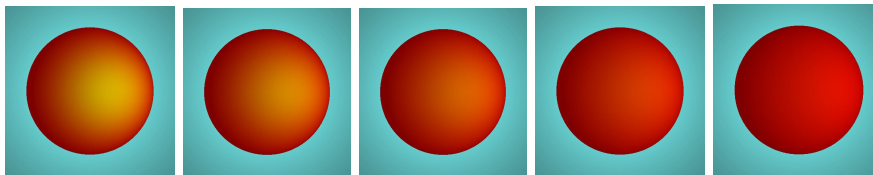
Varying  $k_a = [0.9, 0.7, 0.5, 0.3, 0.1]$

Decreasing  $k_a$  darkens object as it decreases ambient color component



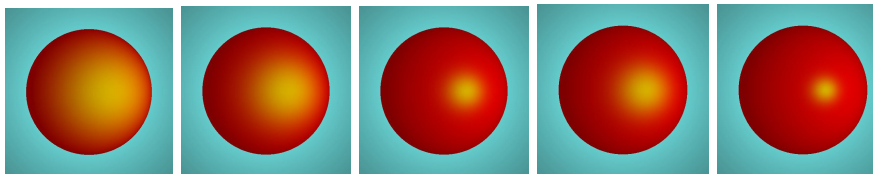
Varying  $k_d = [0.9, 0.7, 0.5, 0.3, 0.1]$

Decreasing  $k_d$  darkens object as it decreases diffused color component



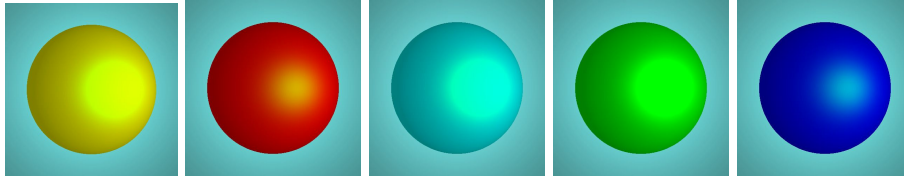
Varying  $k_s = [0.9, 0.7, 0.5, 0.3, 0.1]$

Decreasing  $k_s$  decreases shininess as it decreases reflective color component



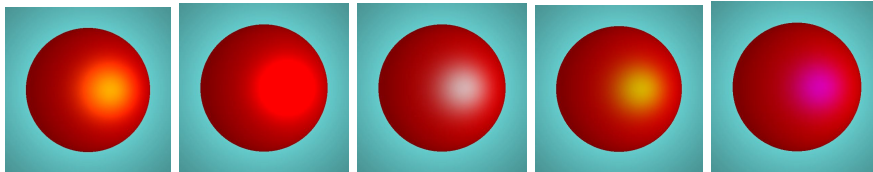
Varying  $n = [2, 4, 8, 16, 32]$

Increasing  $n$  decreases the size of the reflected spot as higher powers of numbers less than one (coefficient of reflective color) go to zero



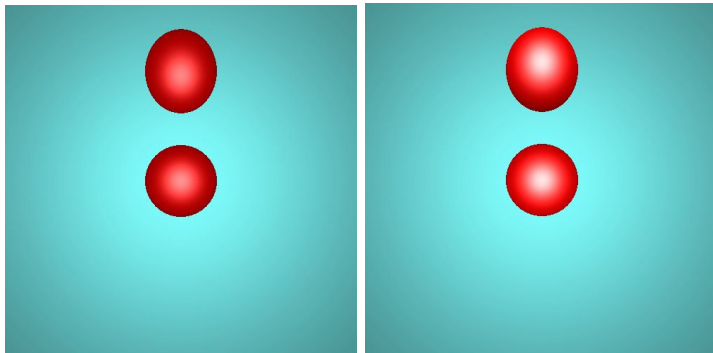
Varying  $O_d$  = [yellow, red, cyan, green, blue]

Changing  $O_d$  changes base ambient and diffused color of object but keeps reflective color same



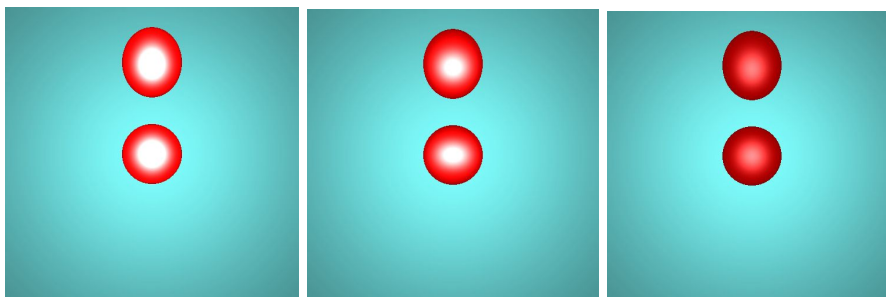
Varying  $O_s$  = [yellow, red, cyan, green, blue]

Changing  $O_s$  changes reflective color of object but keeps ambient and diffused color same



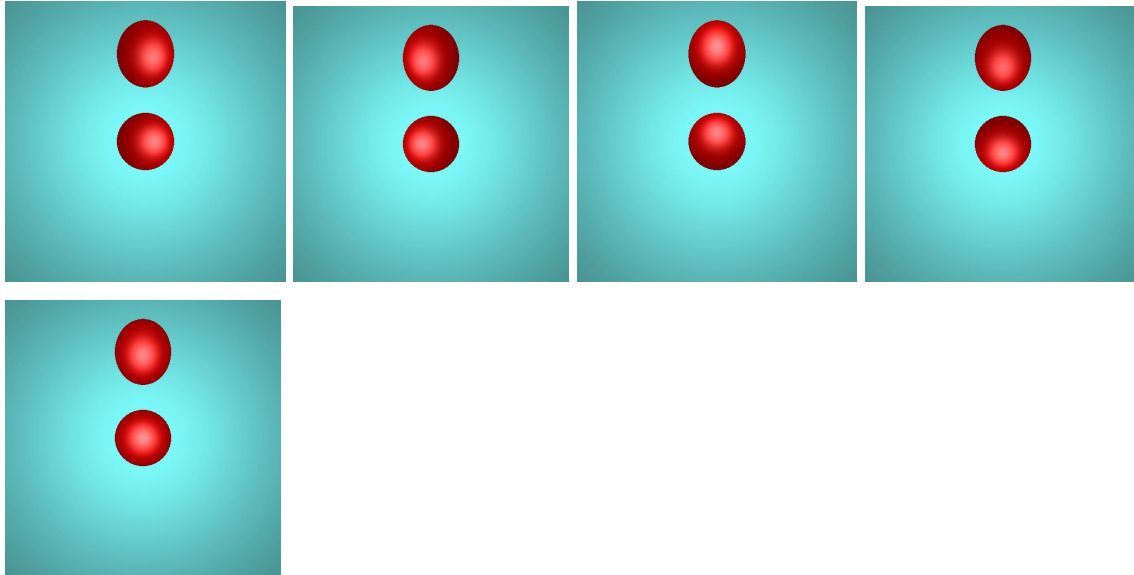
Varying type = [positional (at eye) , directional (towards view dir)]

Positional light reflections are more focused than directional light

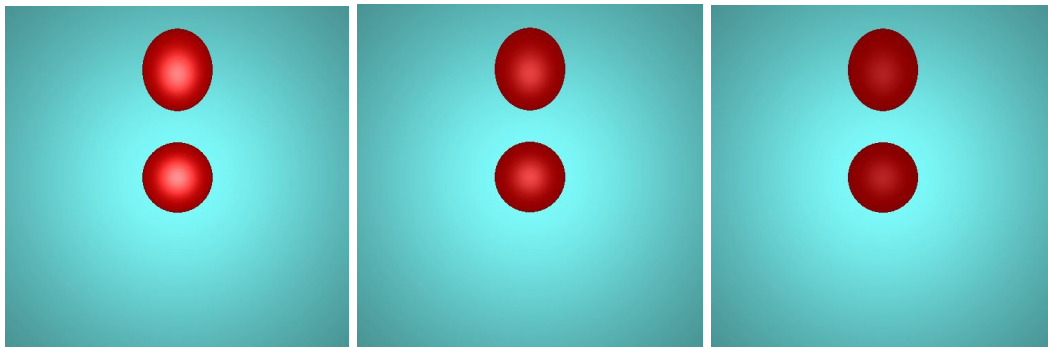


Varying no of lights = [5, 3 ,1]

Decreasing number of lights decreases intensity of reflections



Varying light position = [right, left, up, down, center]  
 Changing position of positional light moves the reflection spots  
 towards the light as expected intuitively



Varying light `rgb=[(1,1,1),(.5,.5,.5),(.25,.25,.25)]`  
 Decreasing light `rgb` intensity decreases intensity of diffused,  
 ambient and reflected colors