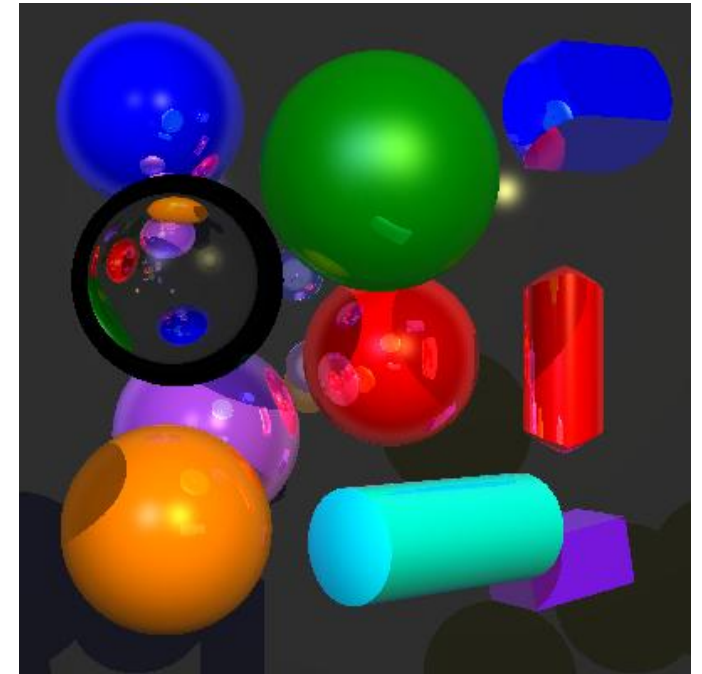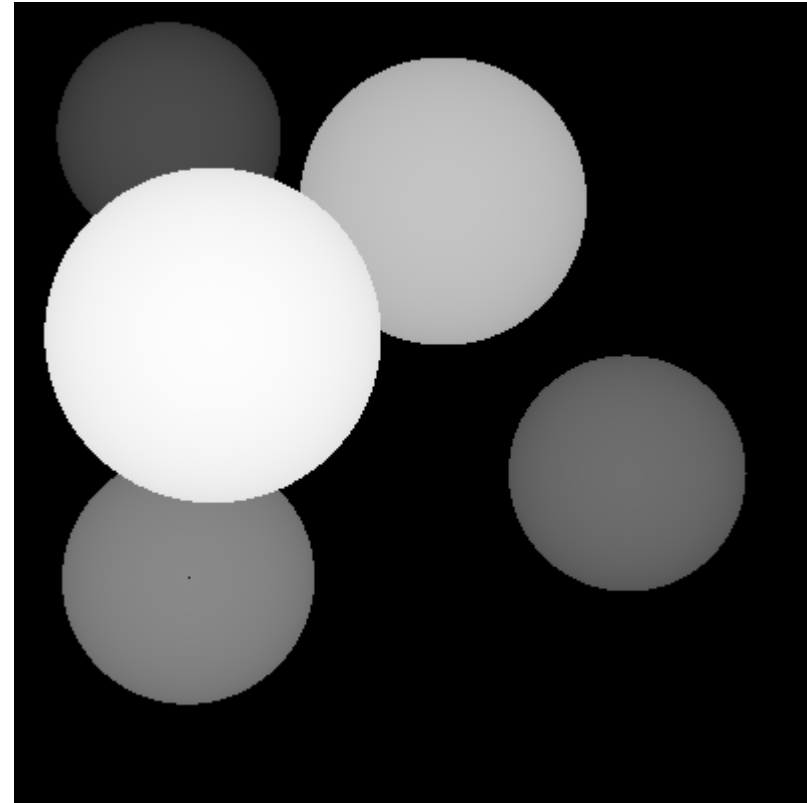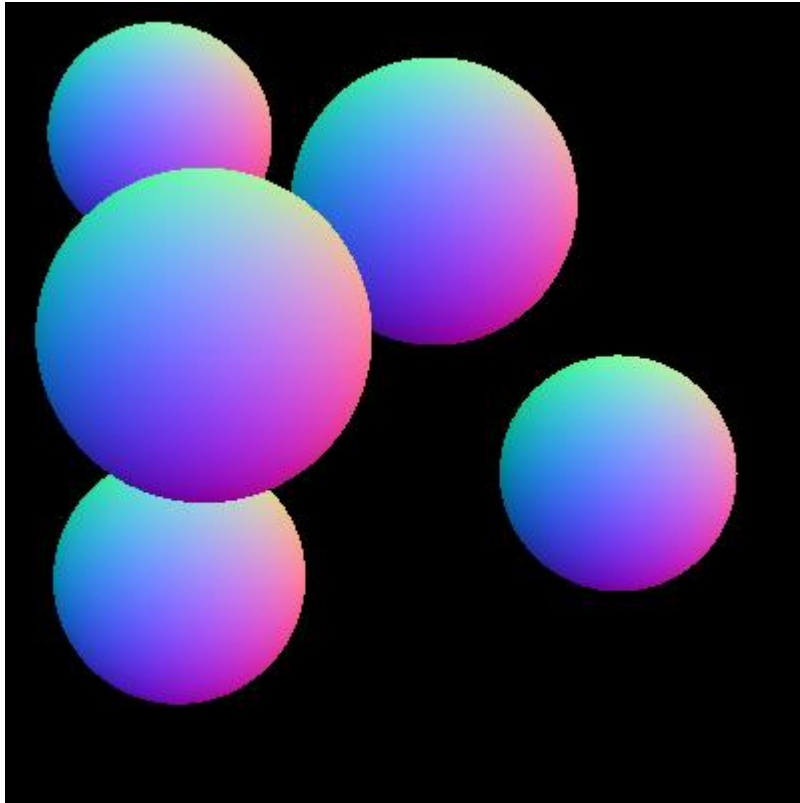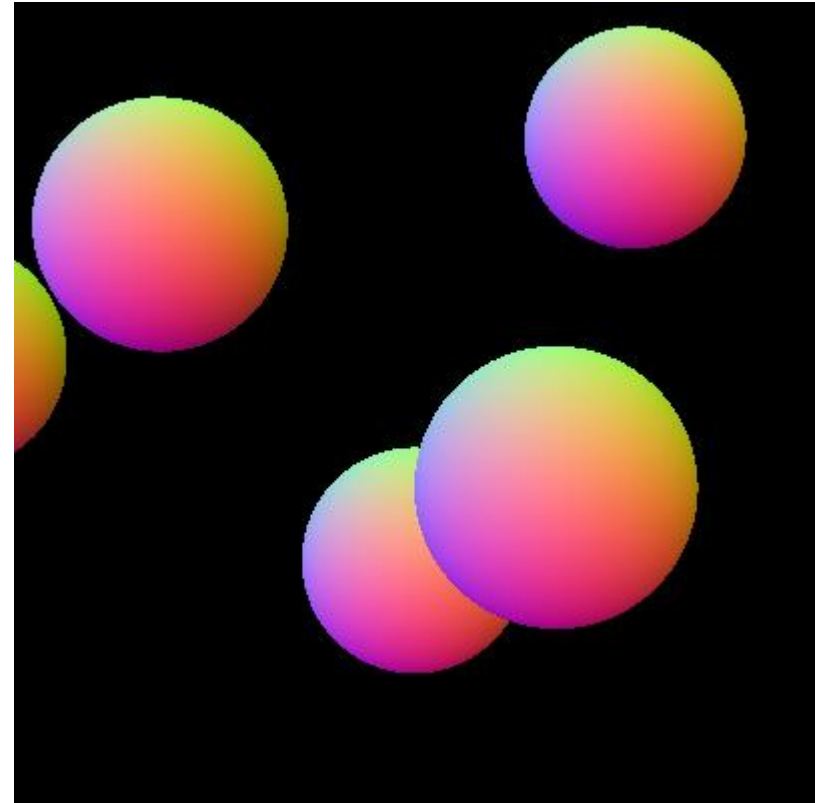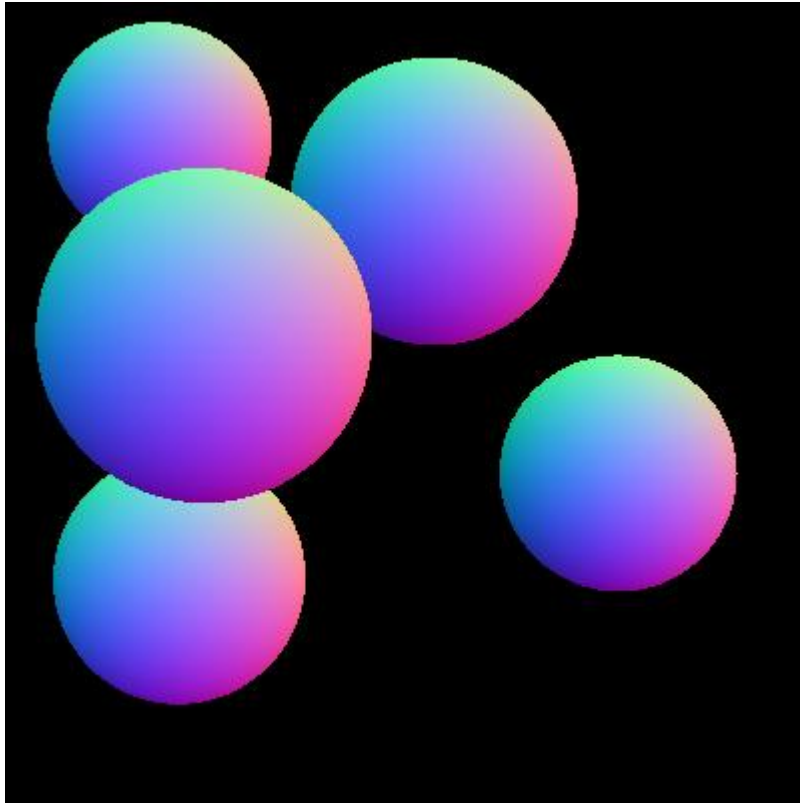**Lab Sessions**

Photorealistic Rendering (Advanced Computer Graphics)

Tobias Isenberg

Results second assignment

Results second assignment

Results second assignment

Results second assignment

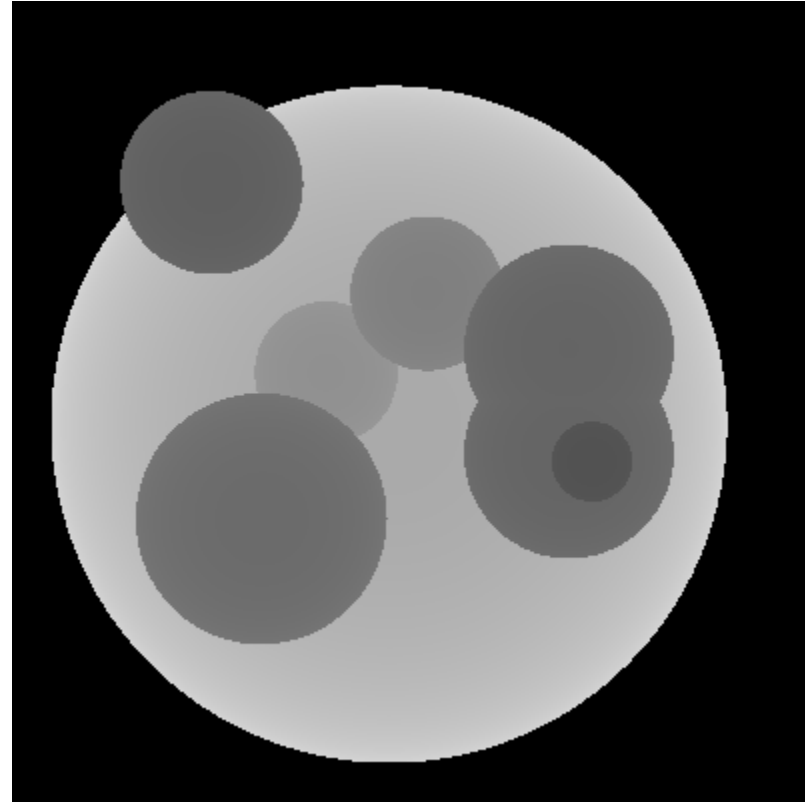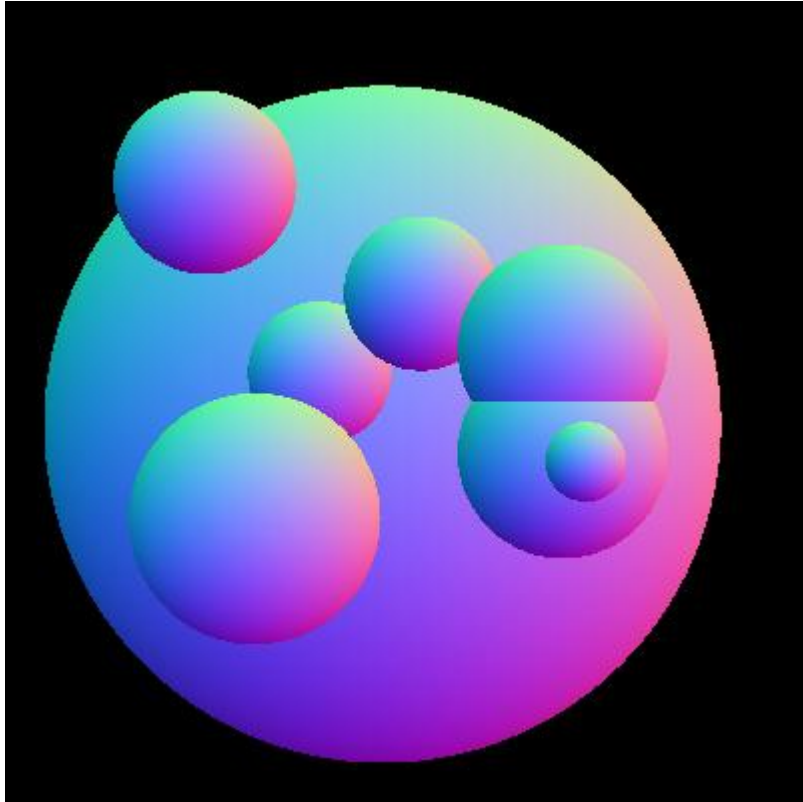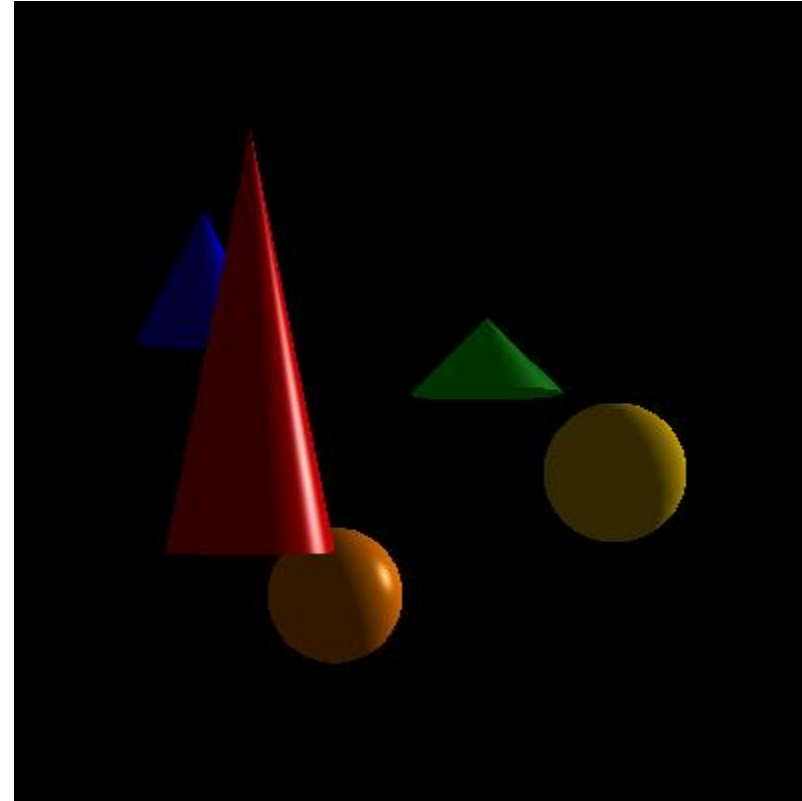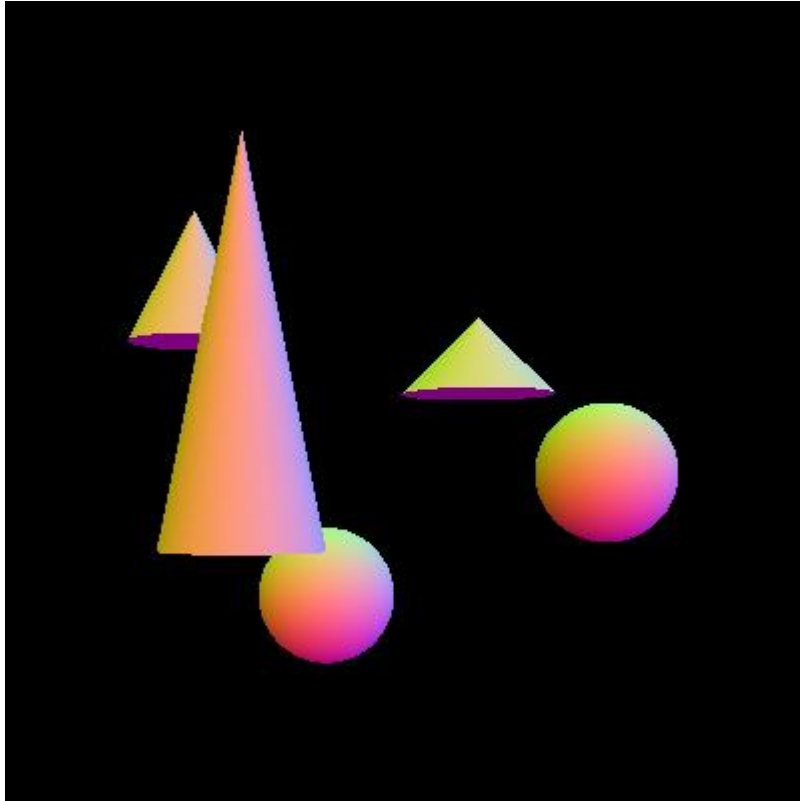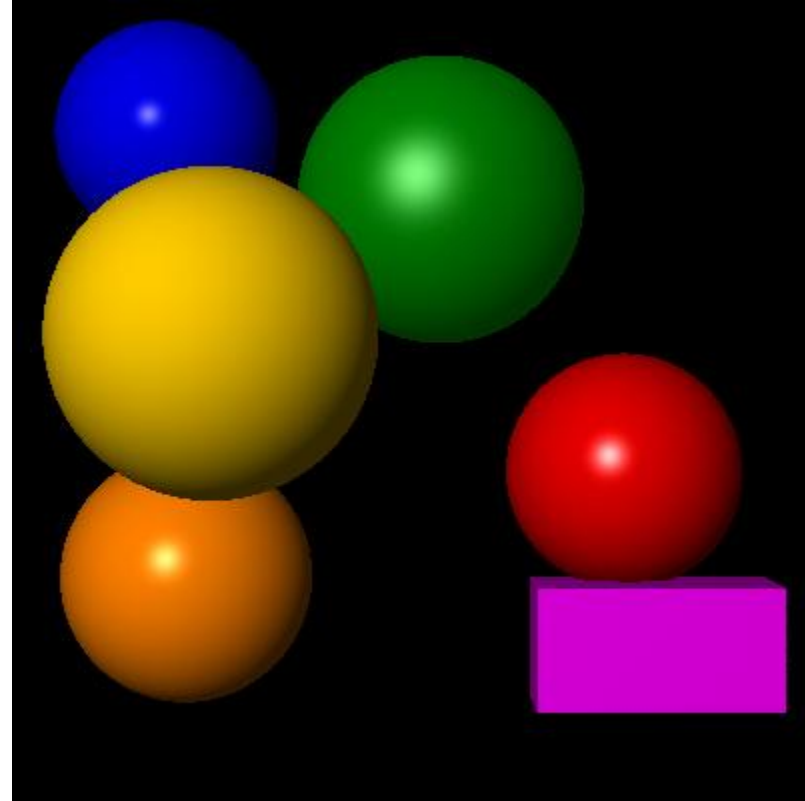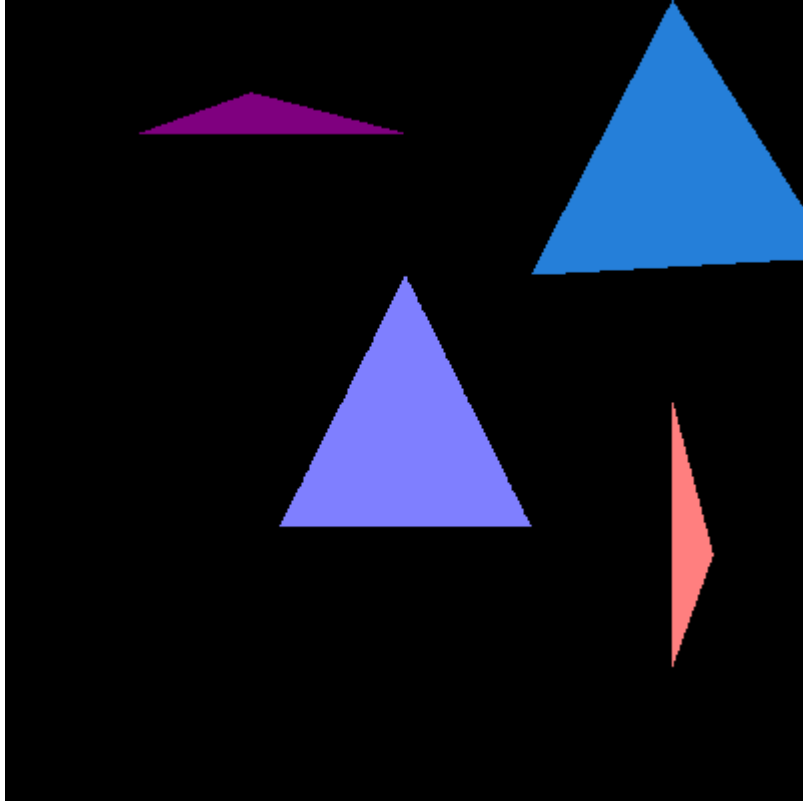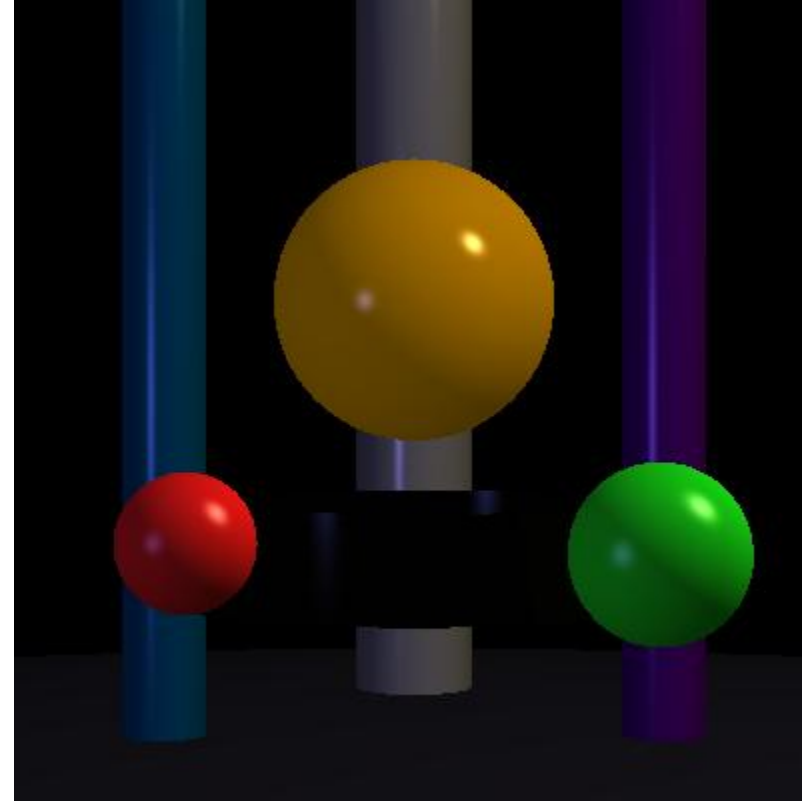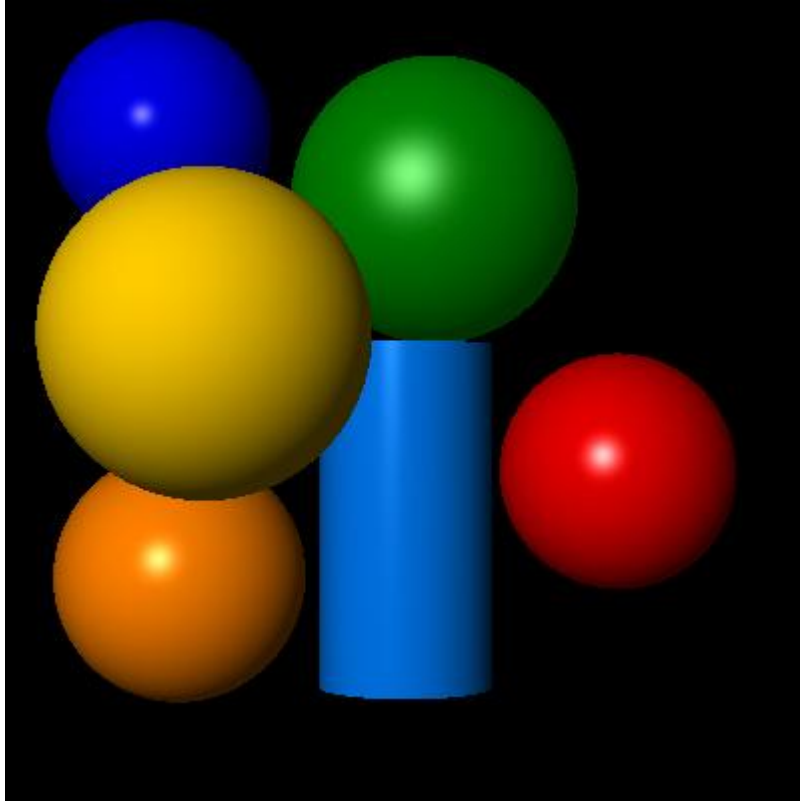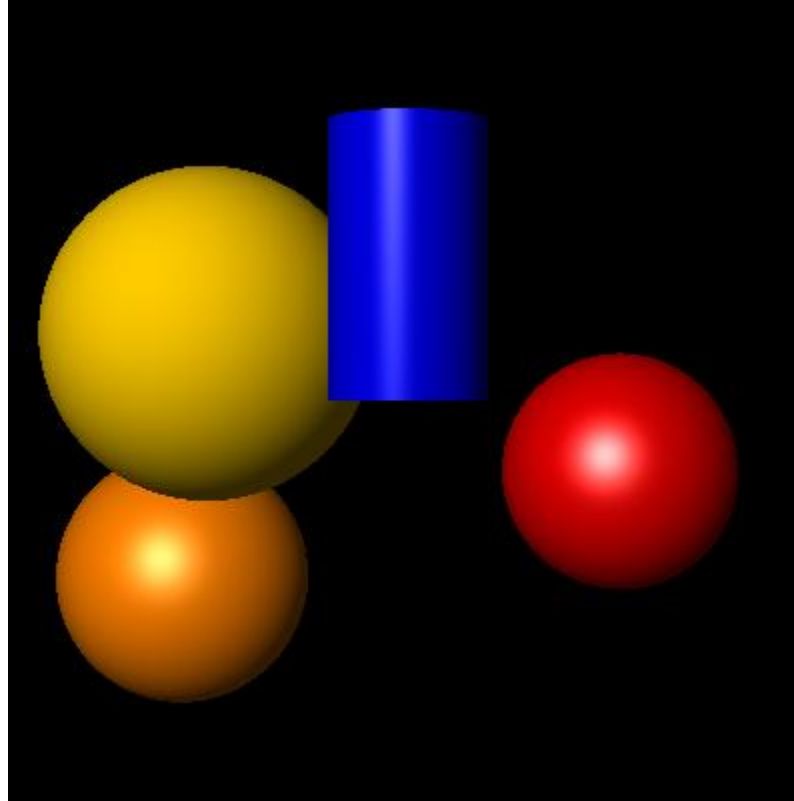# Results second assignment

Results second assignment

Results second assignment
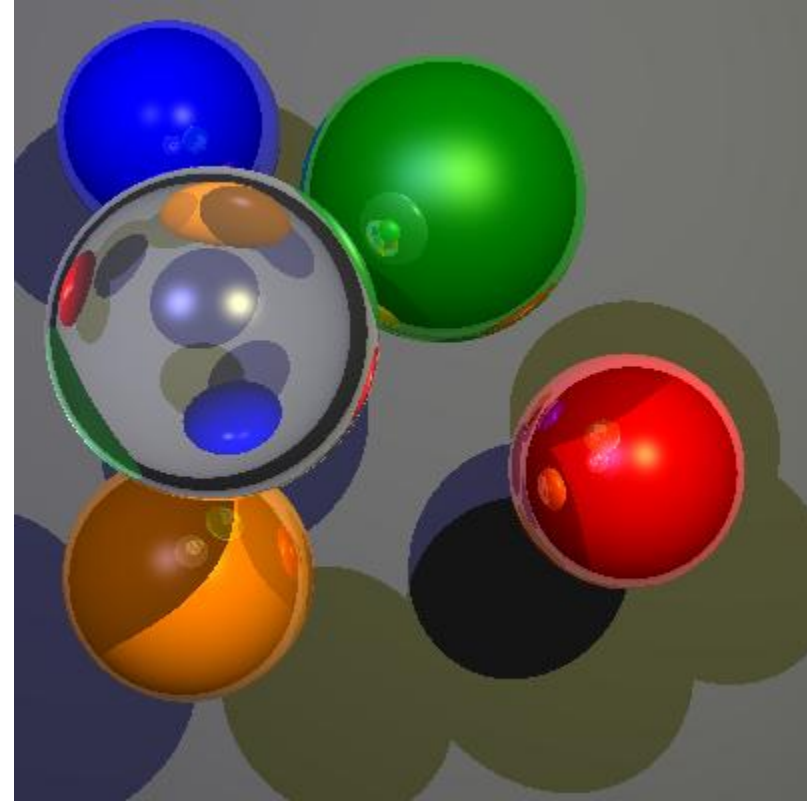
Results second+third assignment
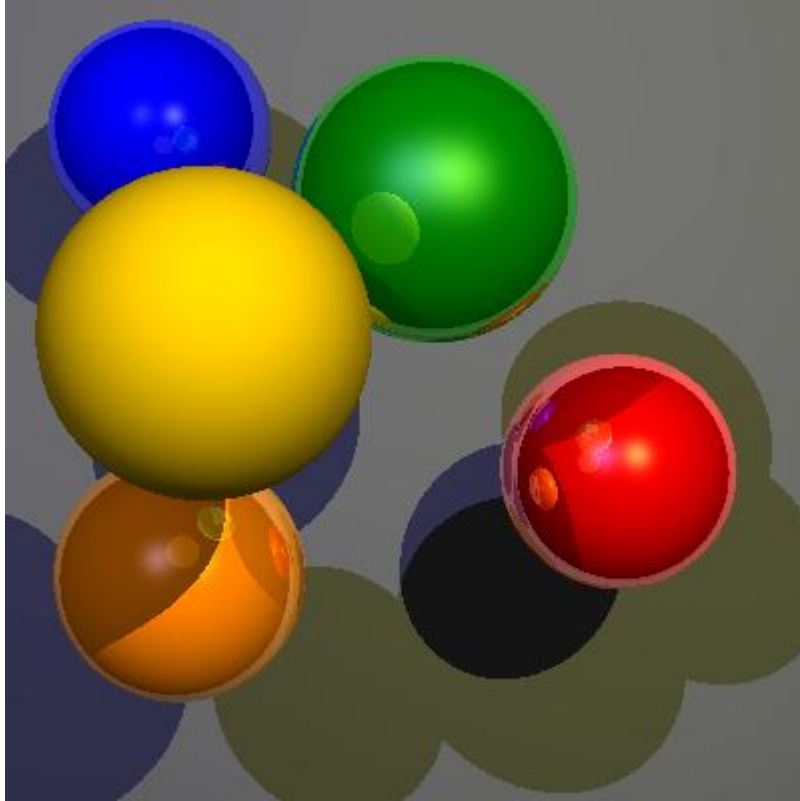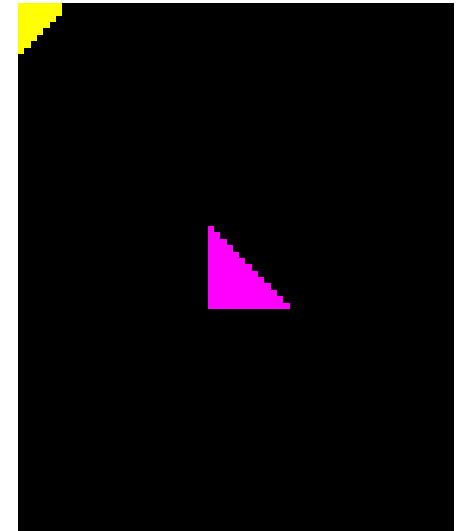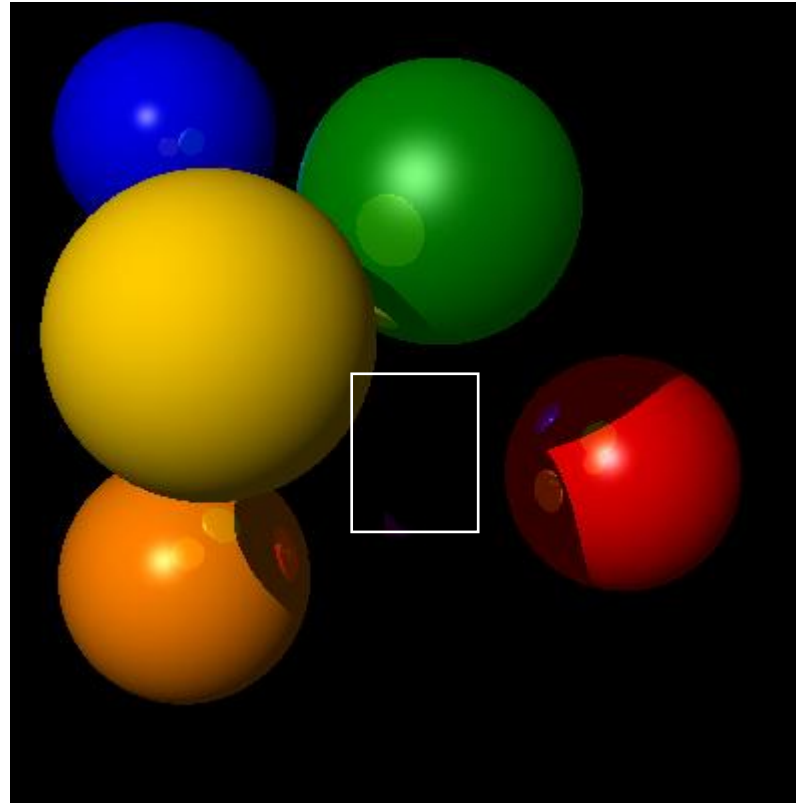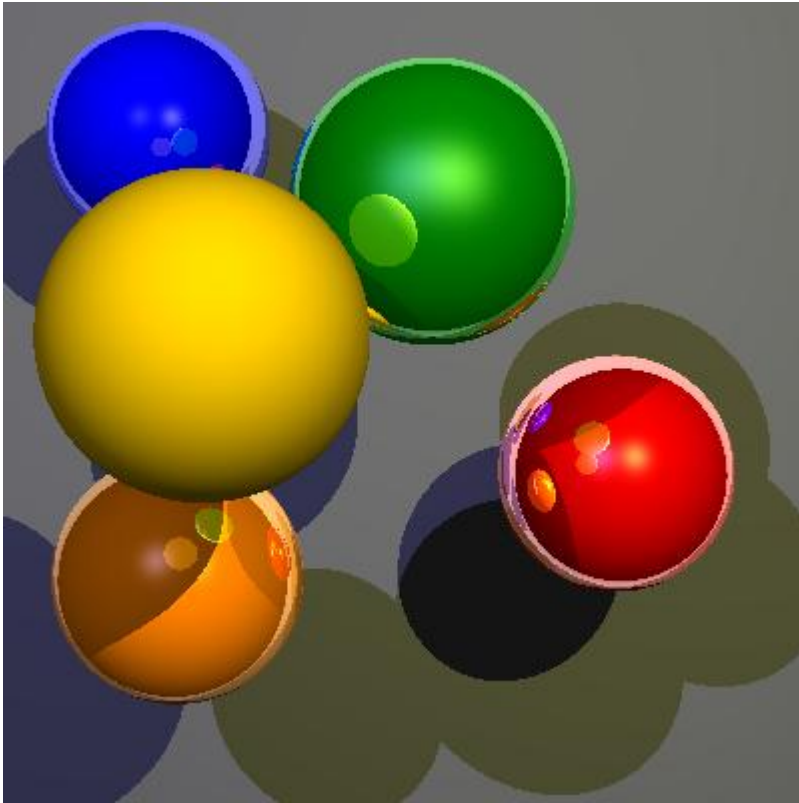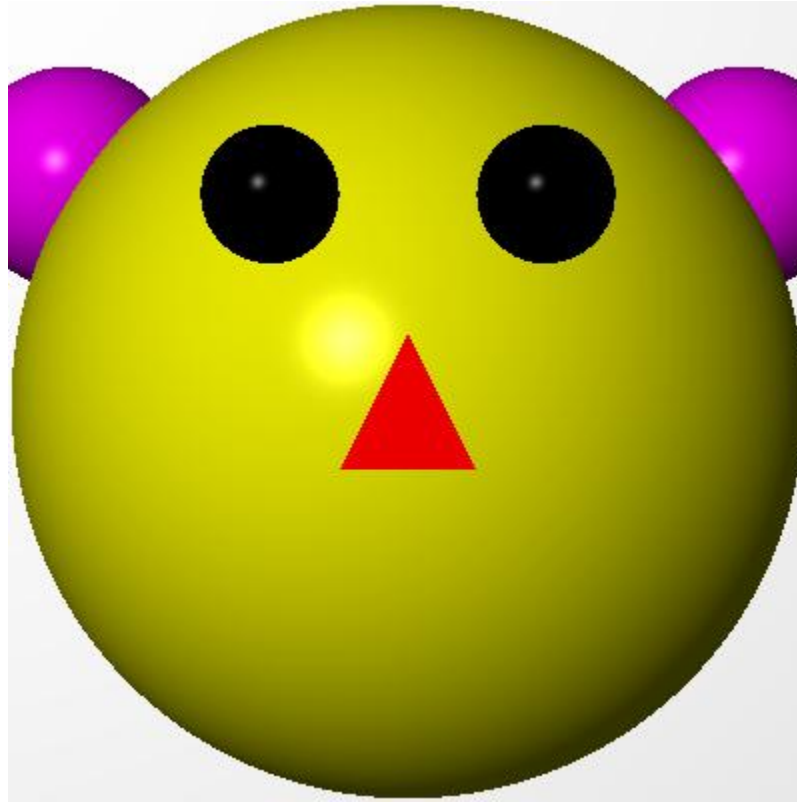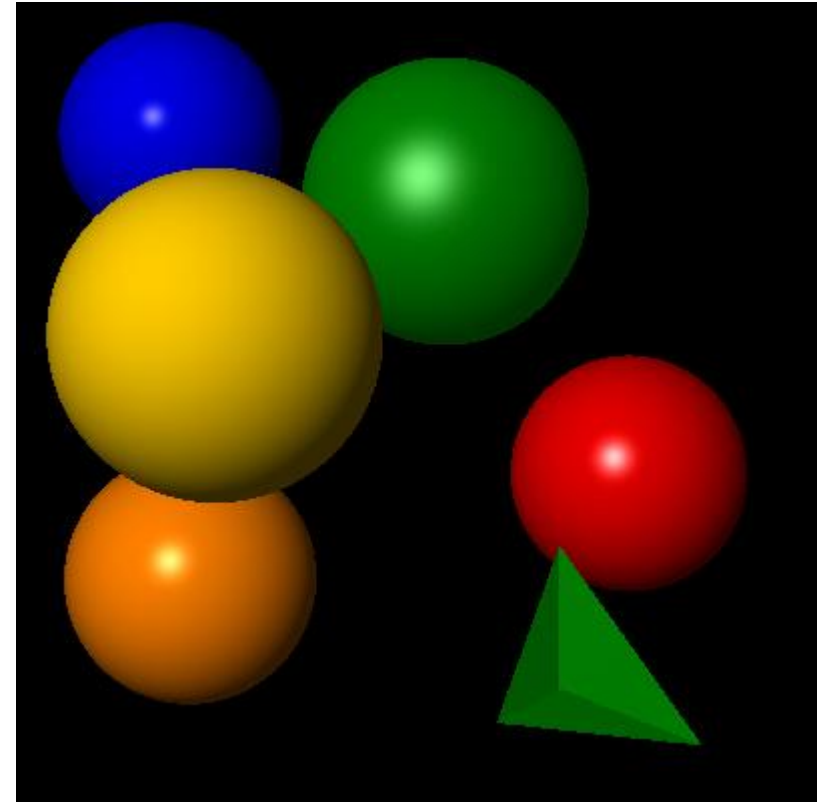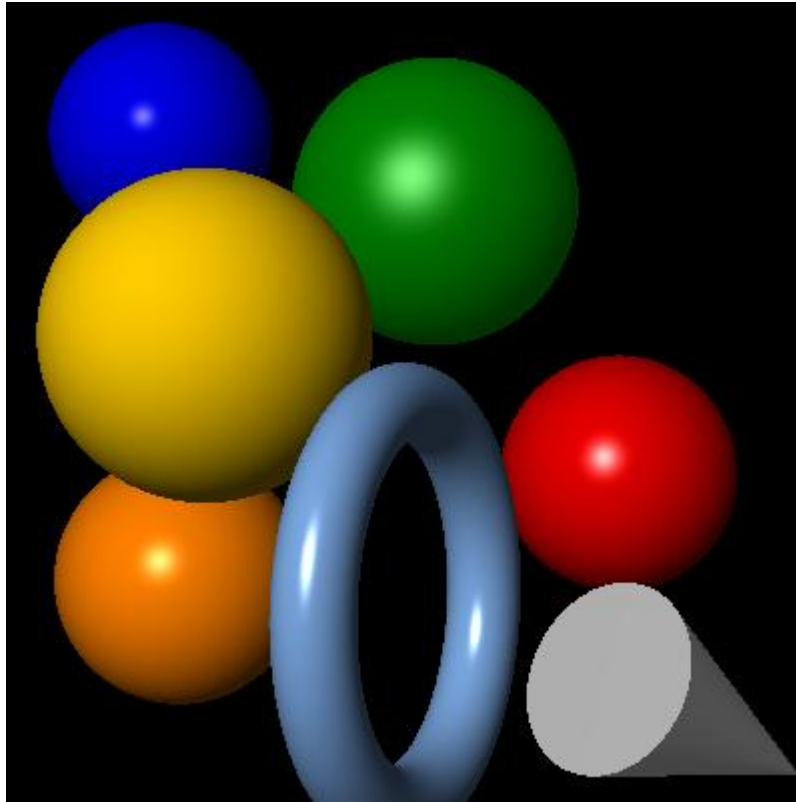
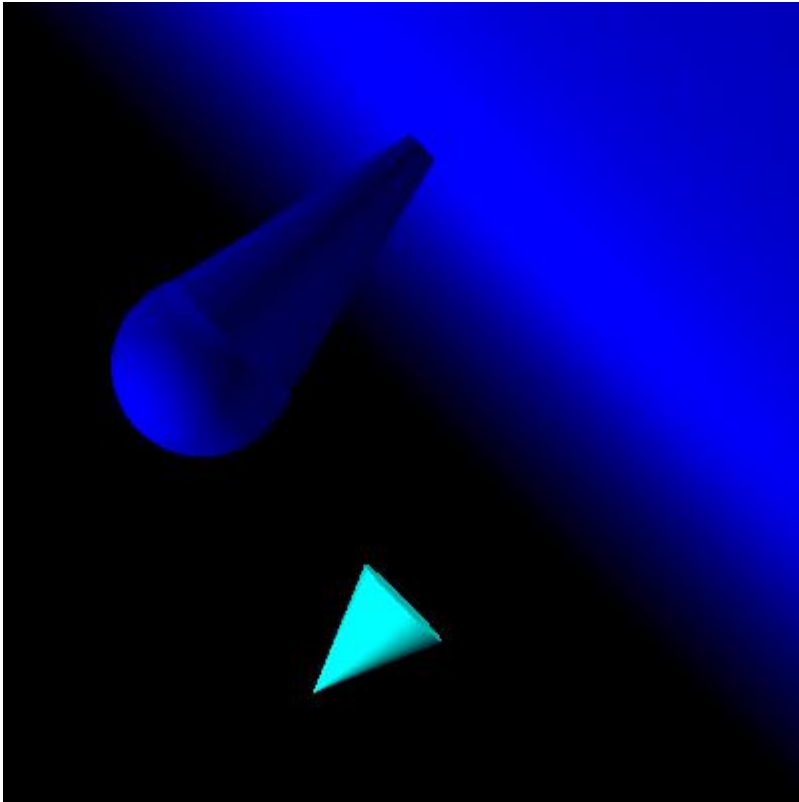# Results second+third assignment

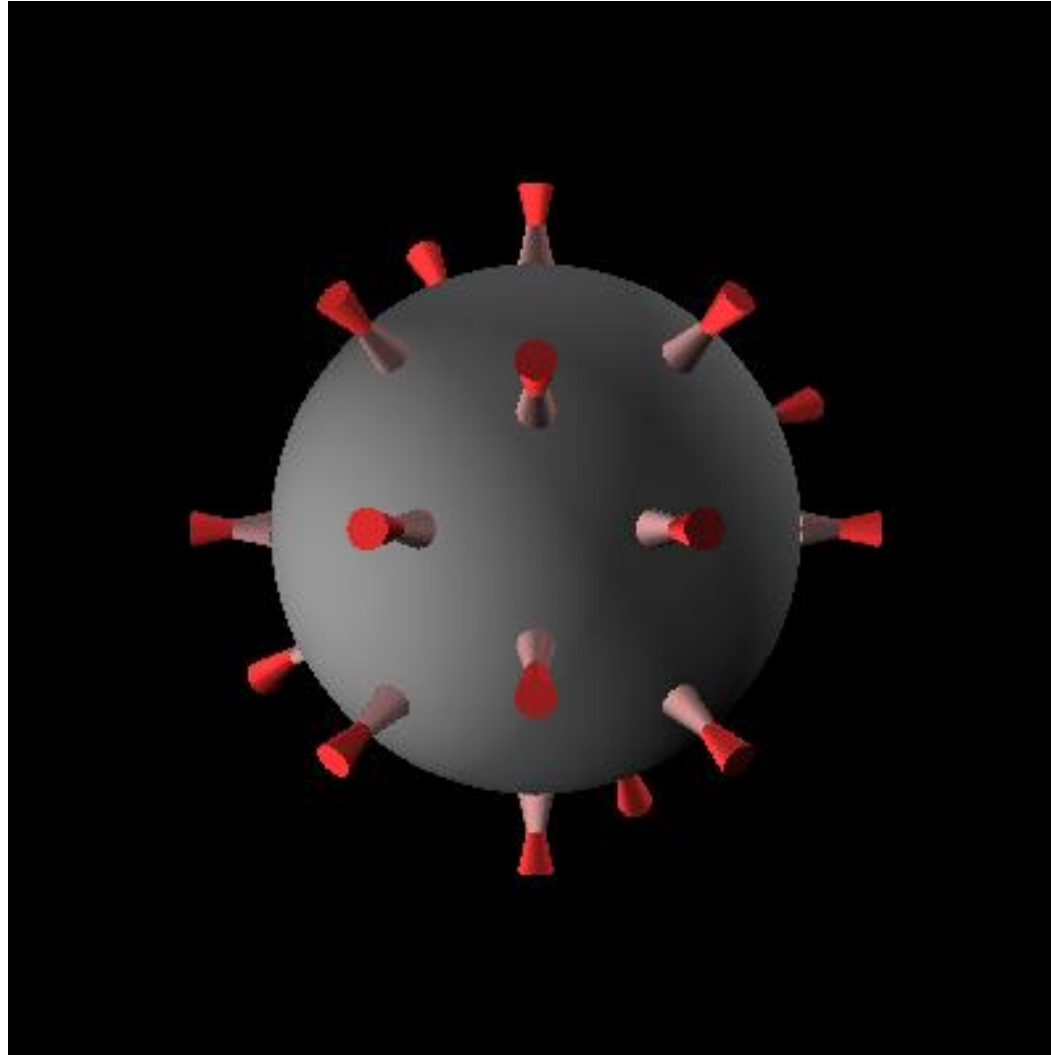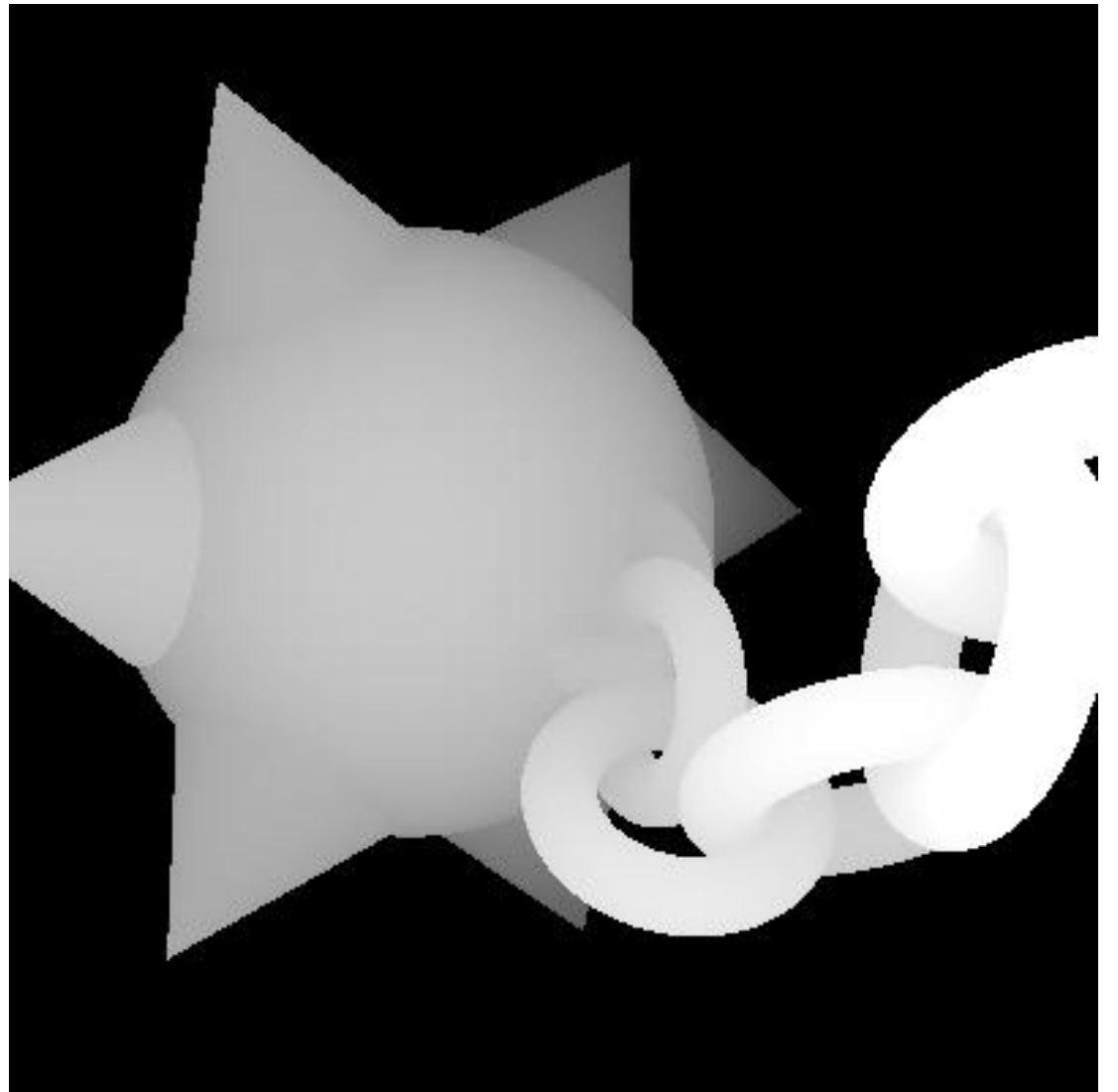# Results second assignment (prev. years)

Results second assignment (prev. years)

Results from last years

Results from last years
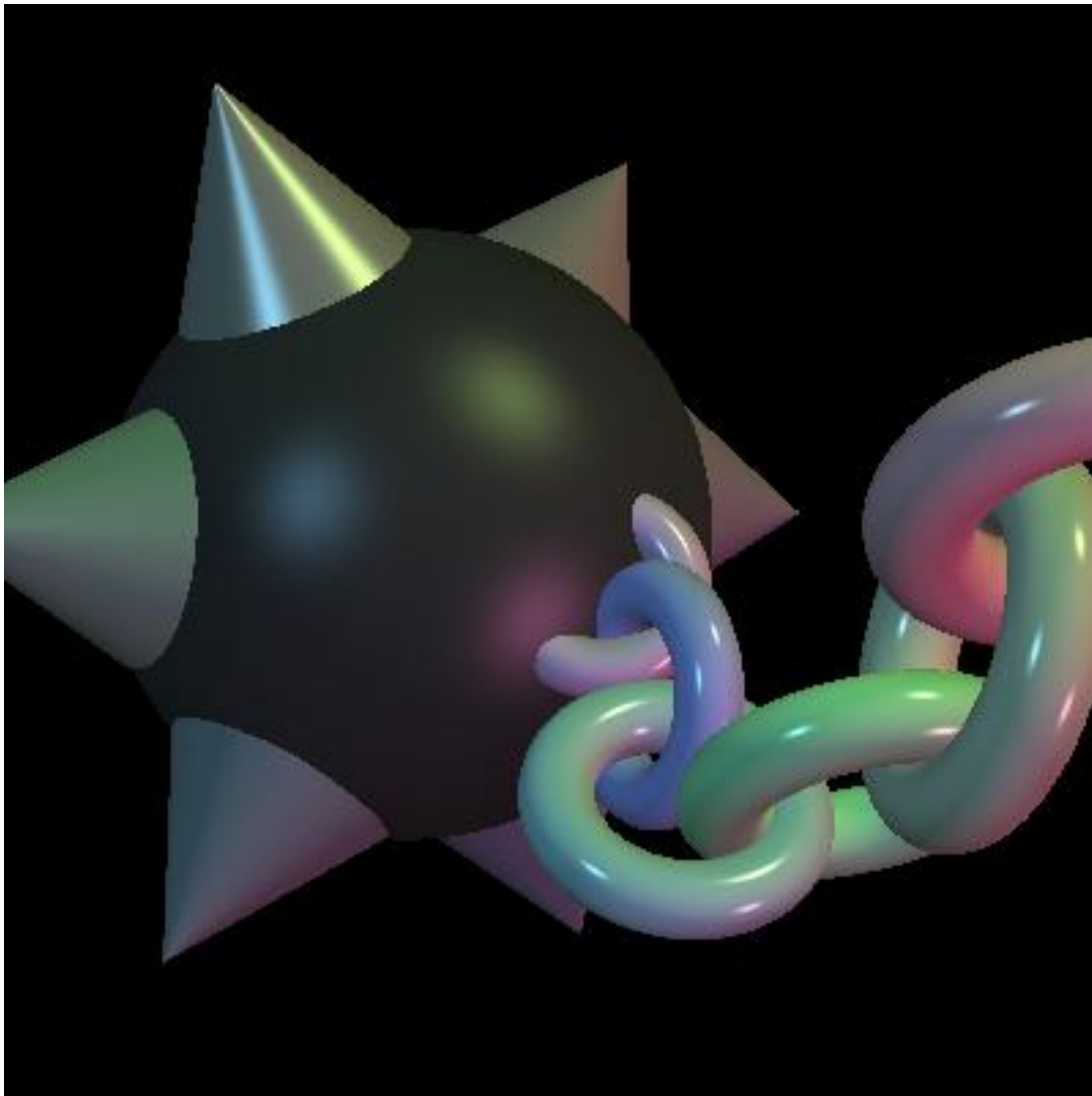
Results from last years
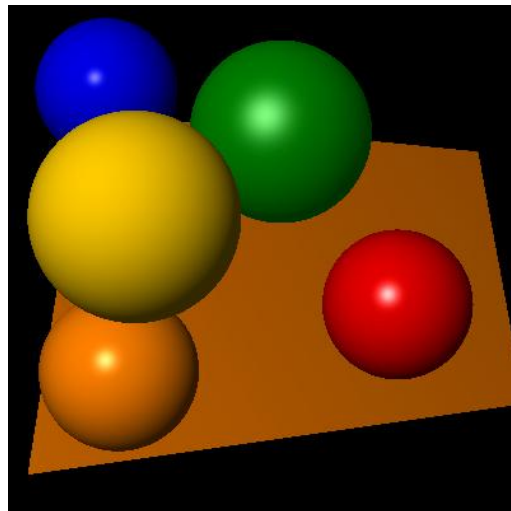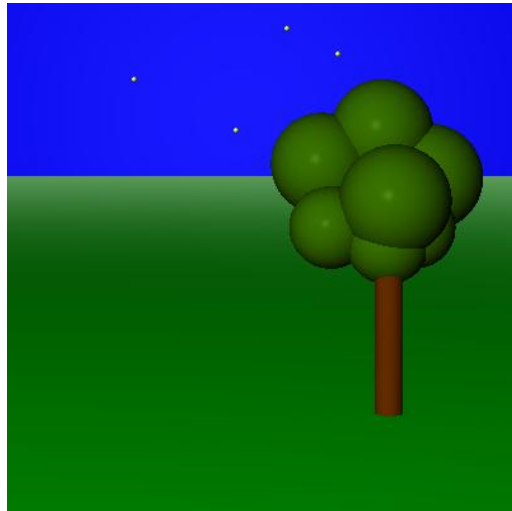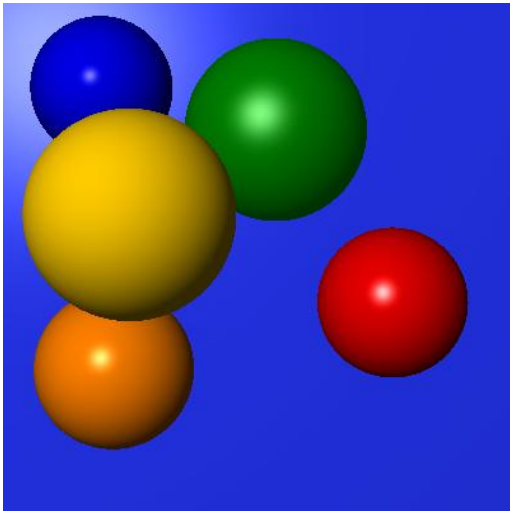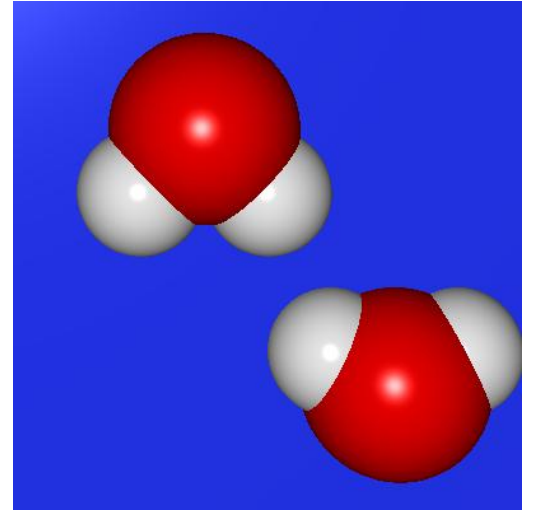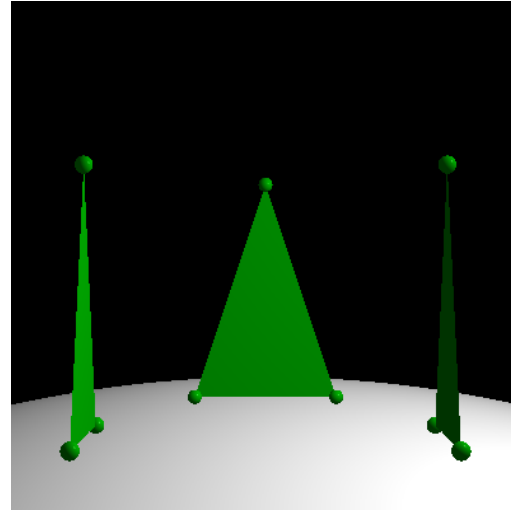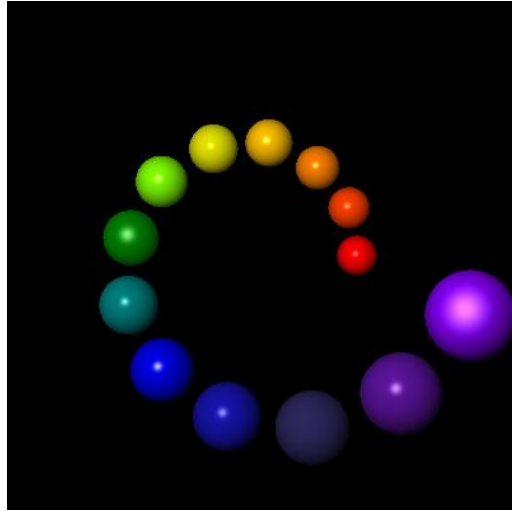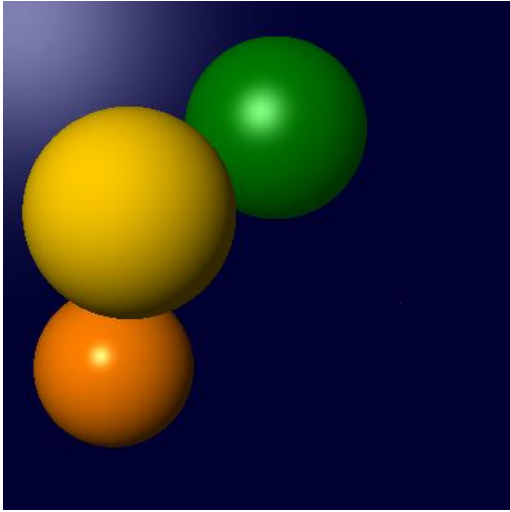
Results from last years
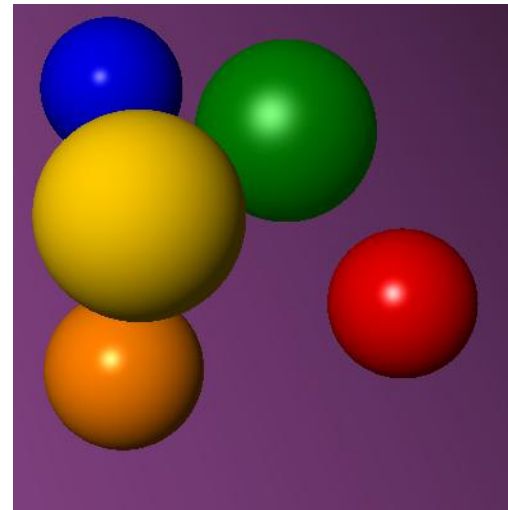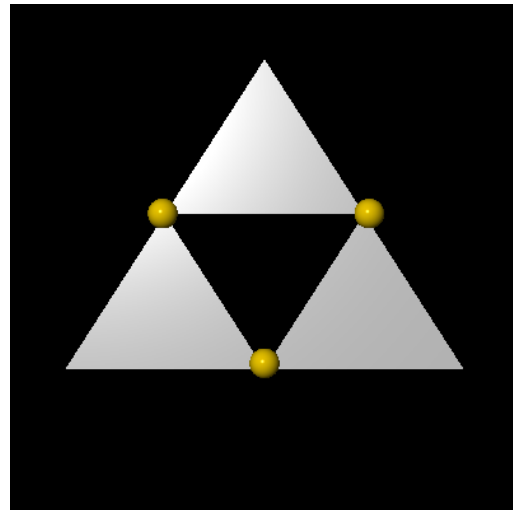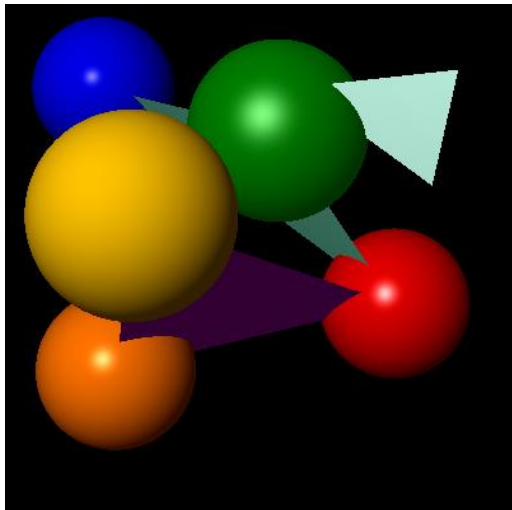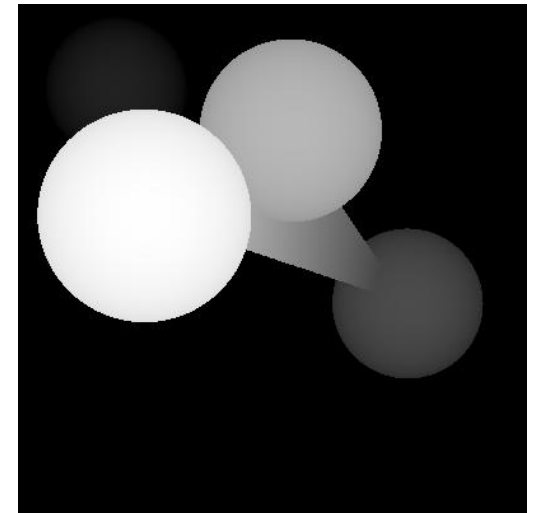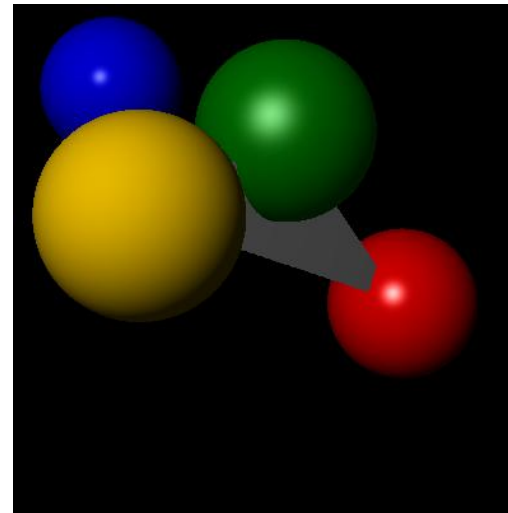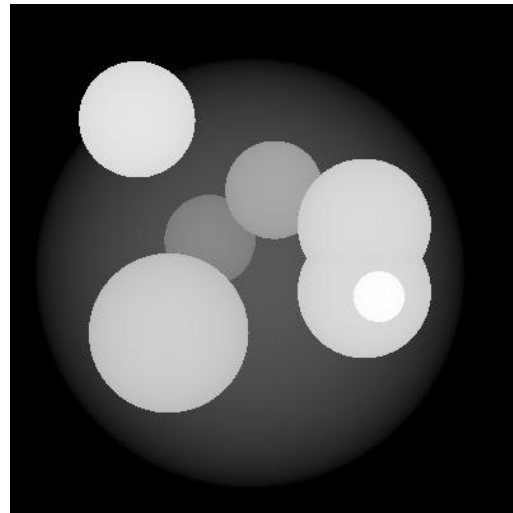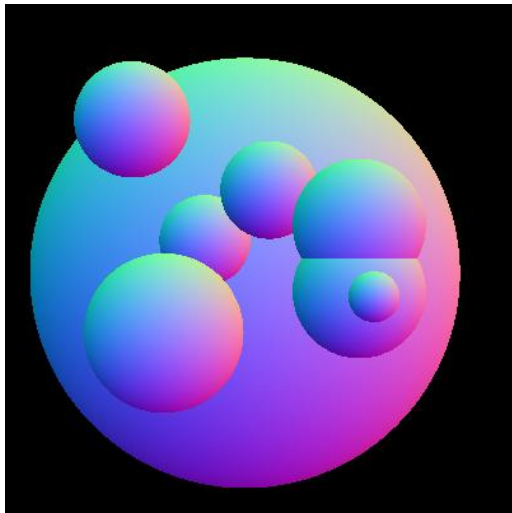
Errors in 2nd assignment
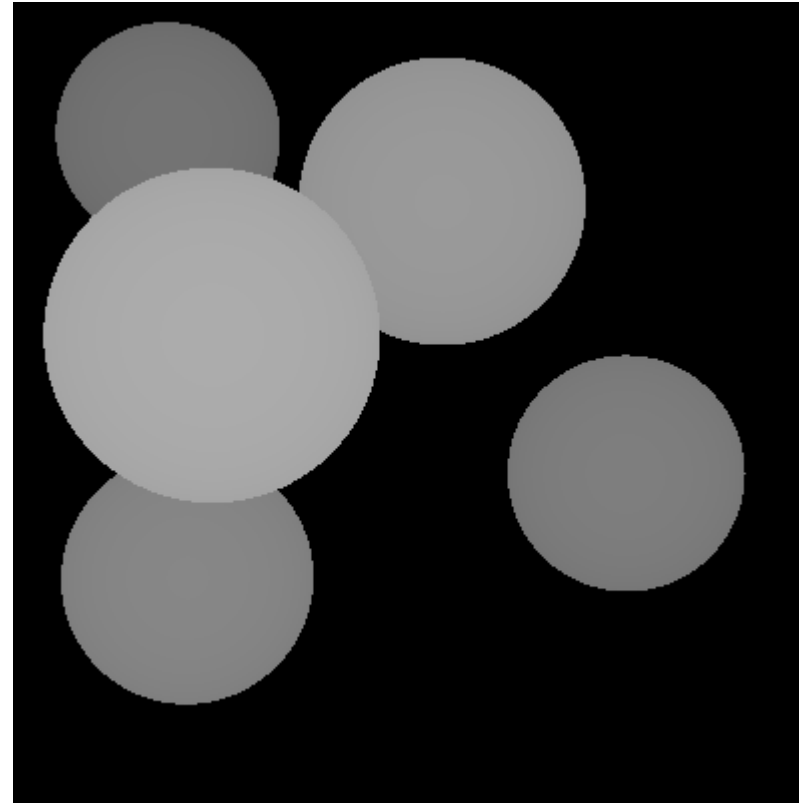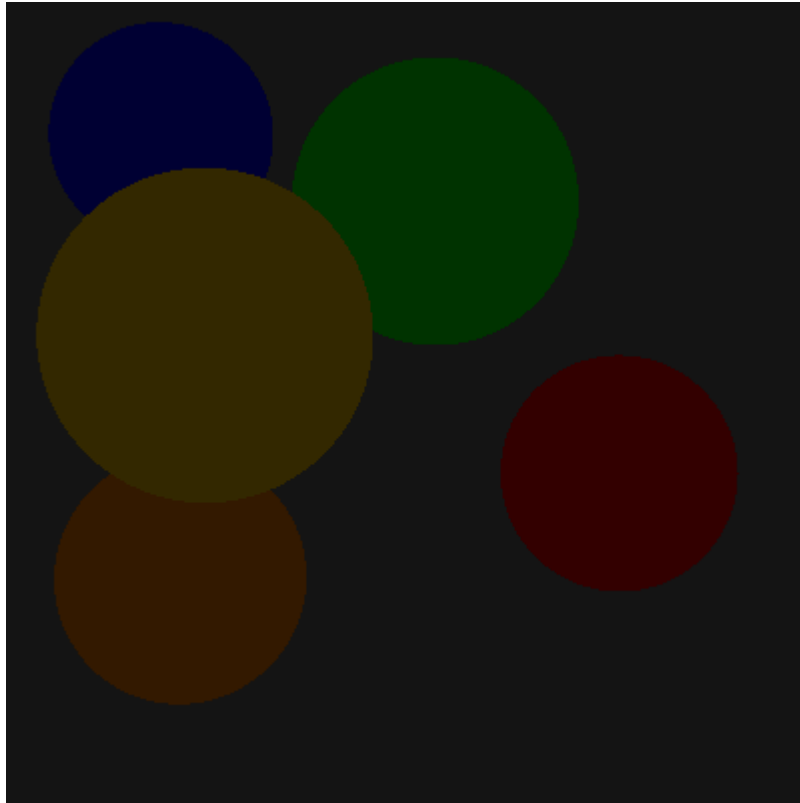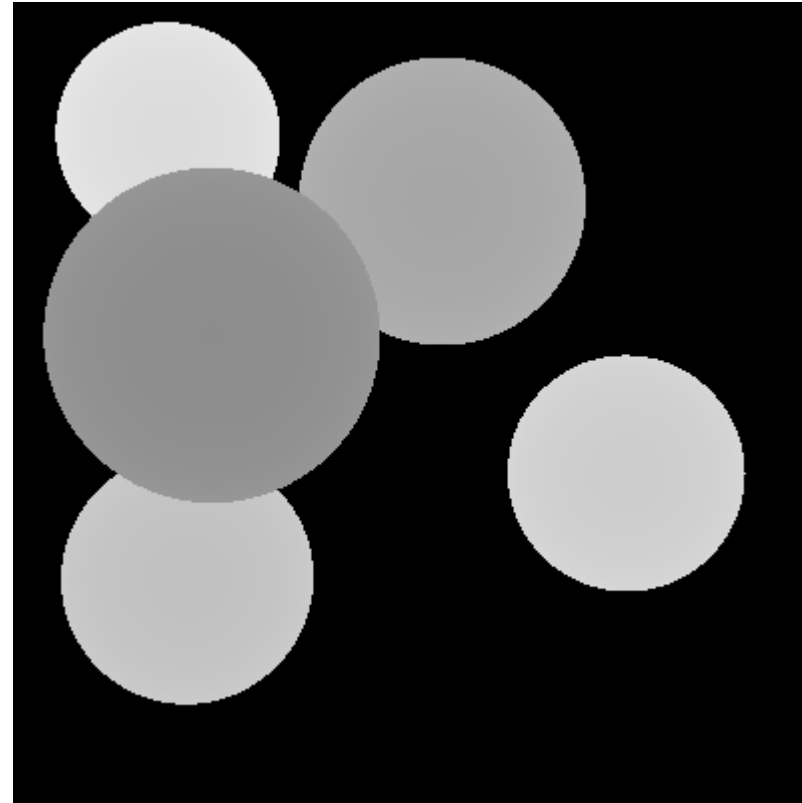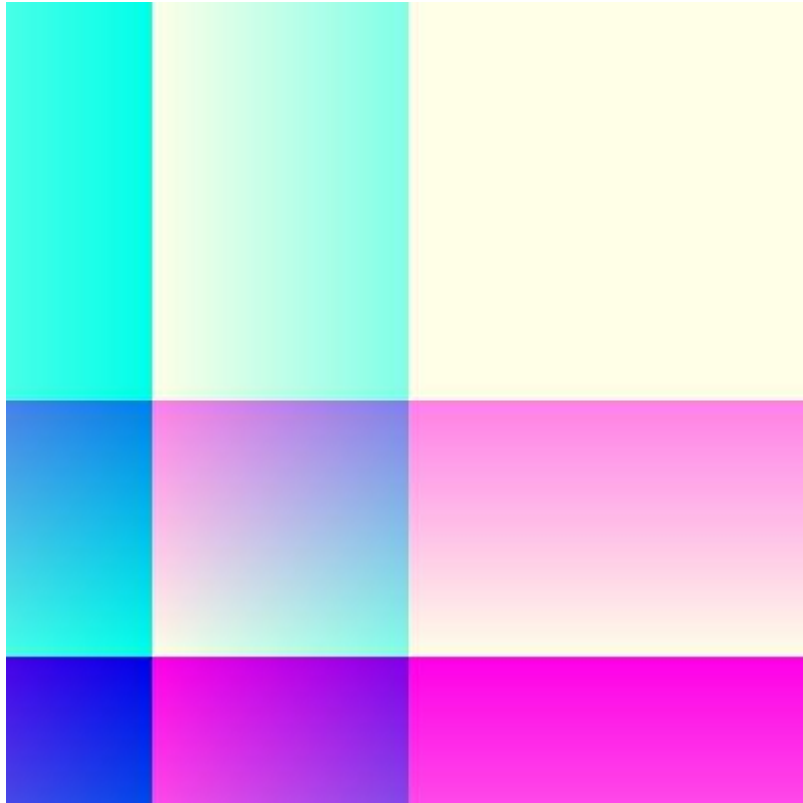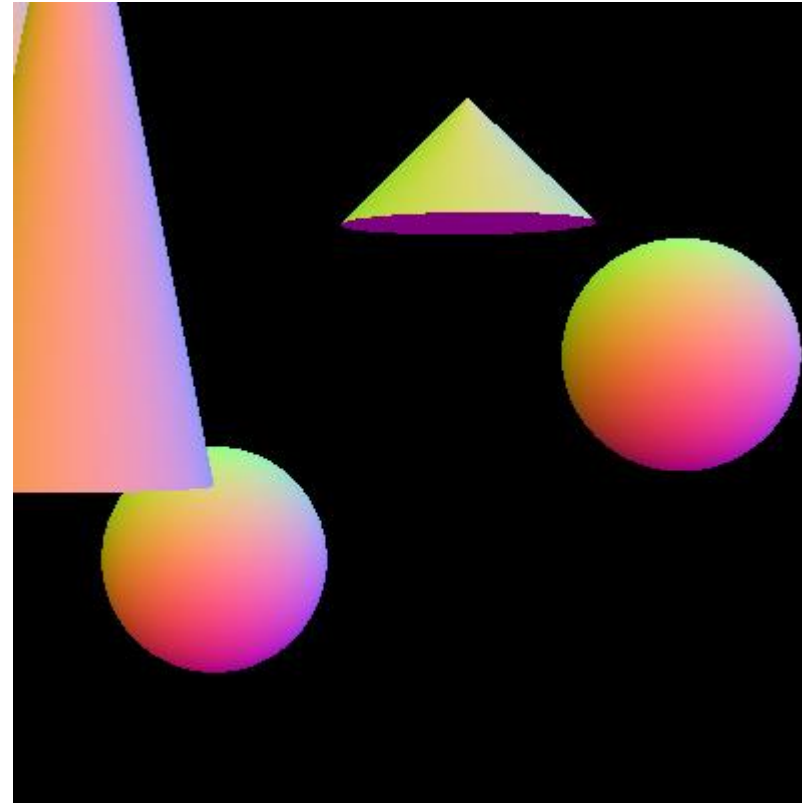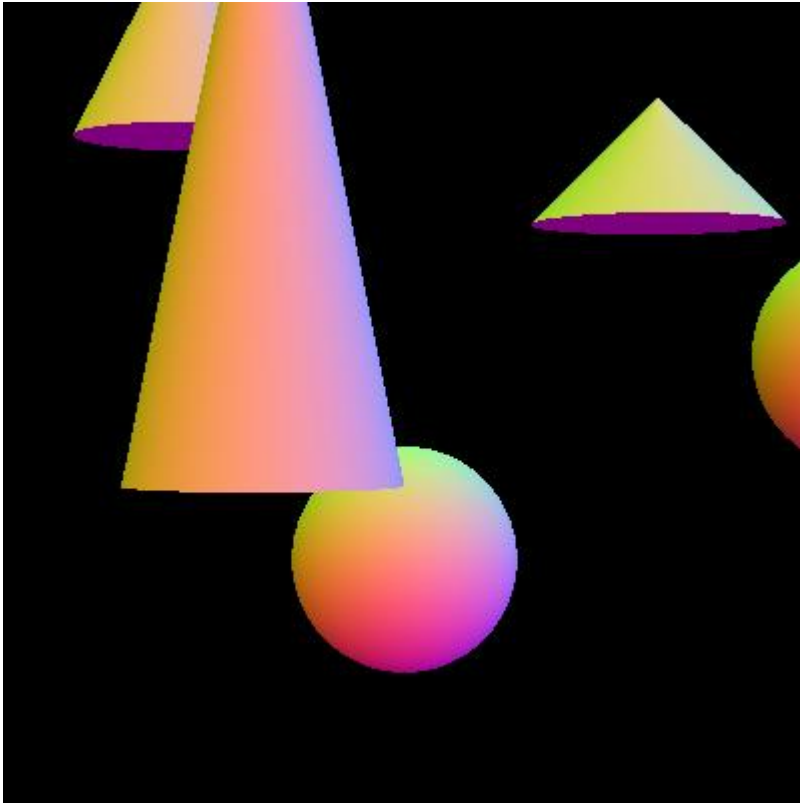
Errors in 2ⁿᵈ assignment

"Errors" in 2nd assignment

Errors in 2ⁿᵈ assignment (prev. years)
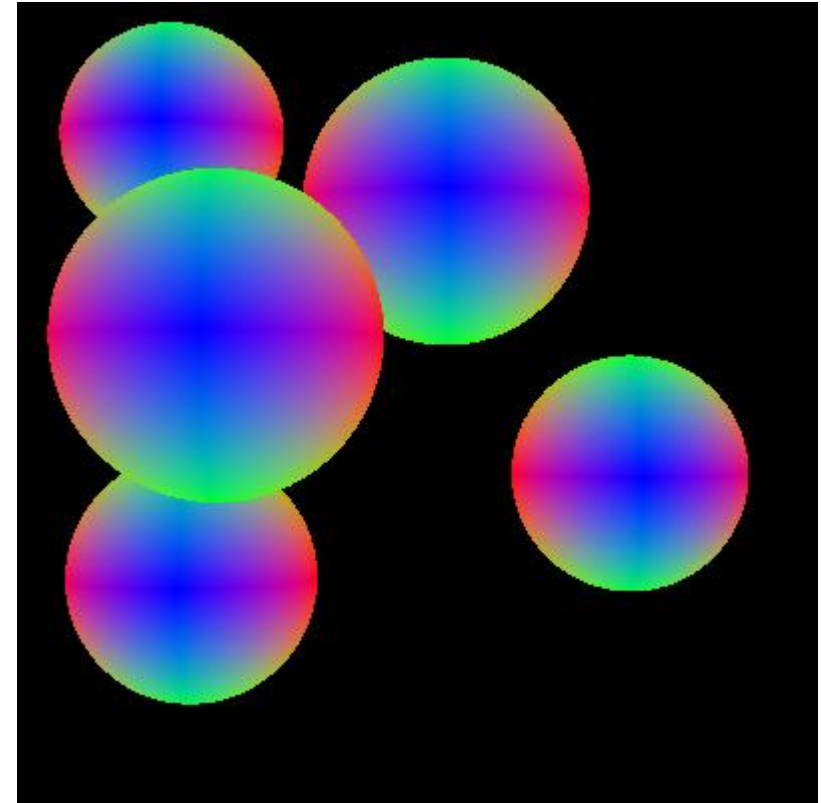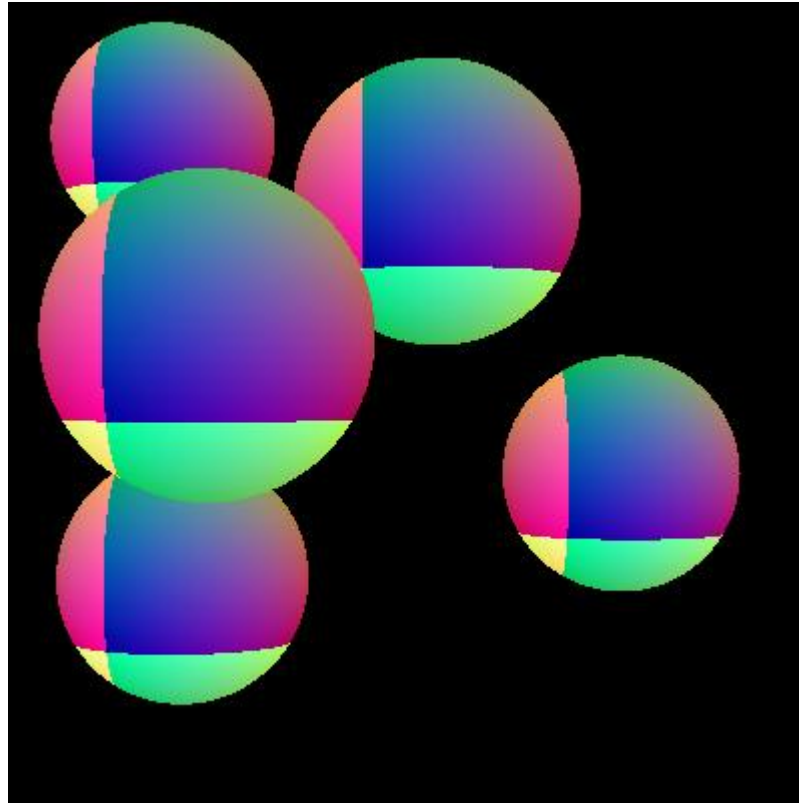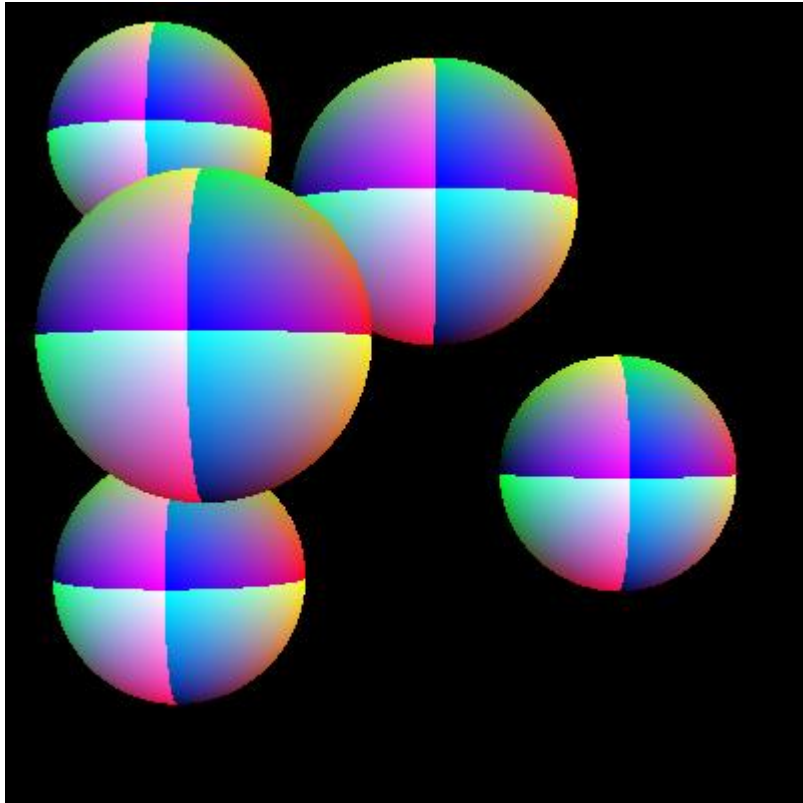
Errors in 2ⁿᵈ assignment (prev. years)
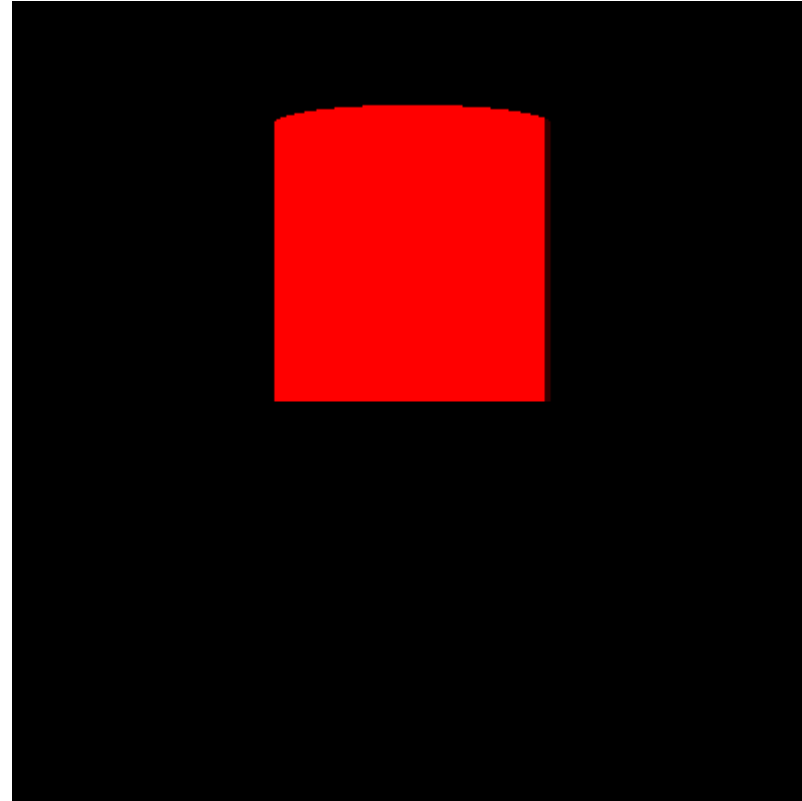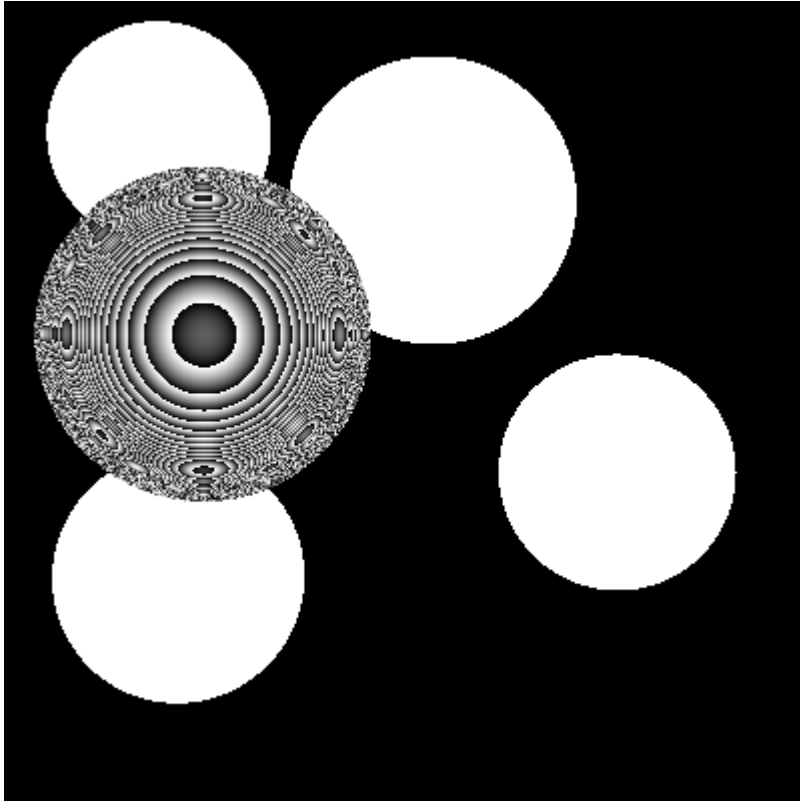
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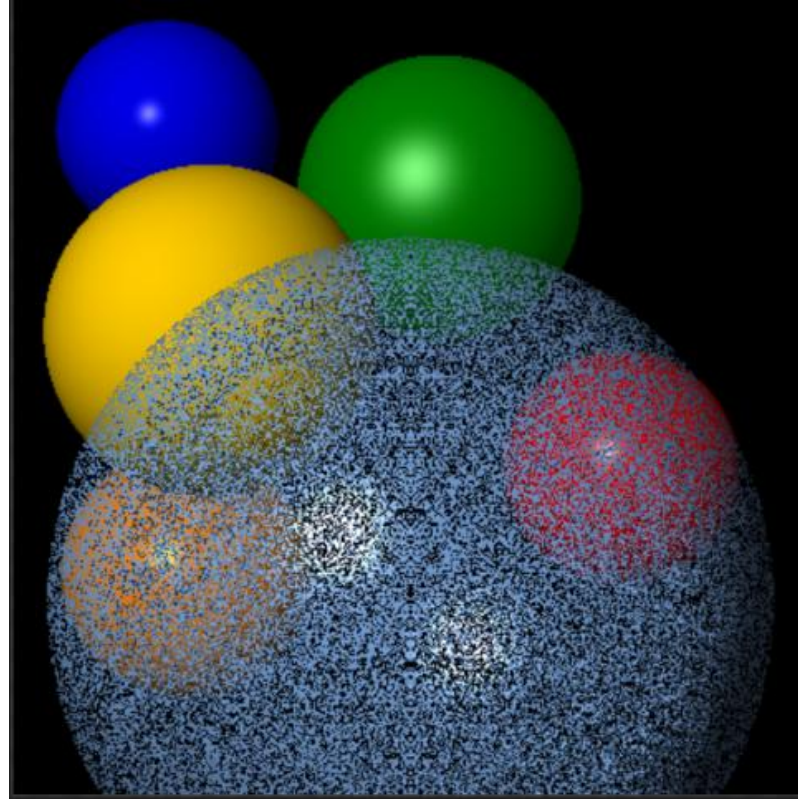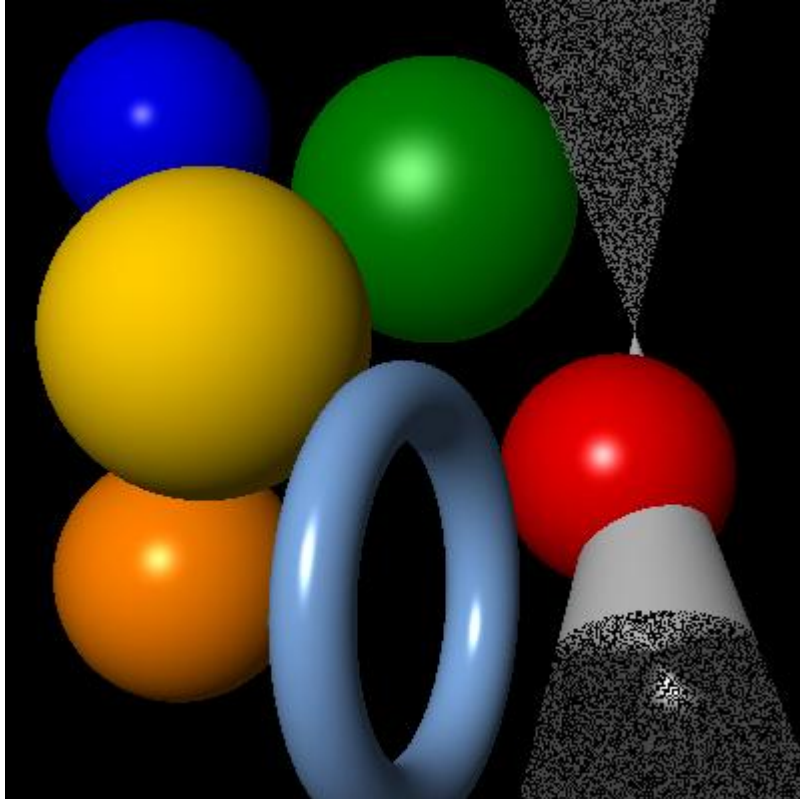
Errors in 2nd assignment (prev. years)
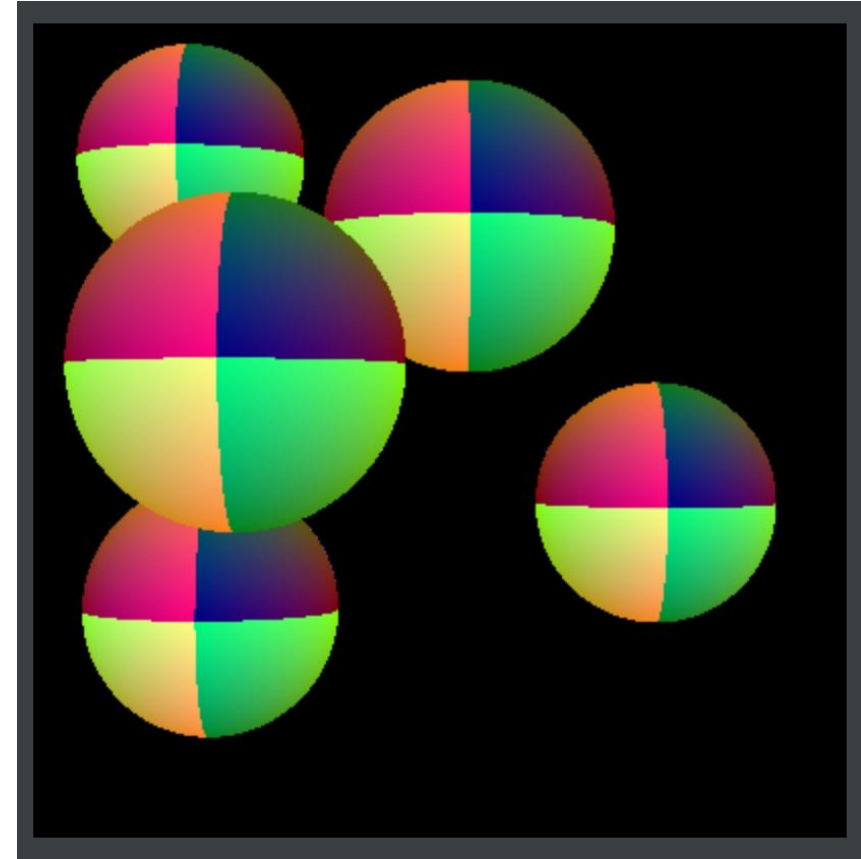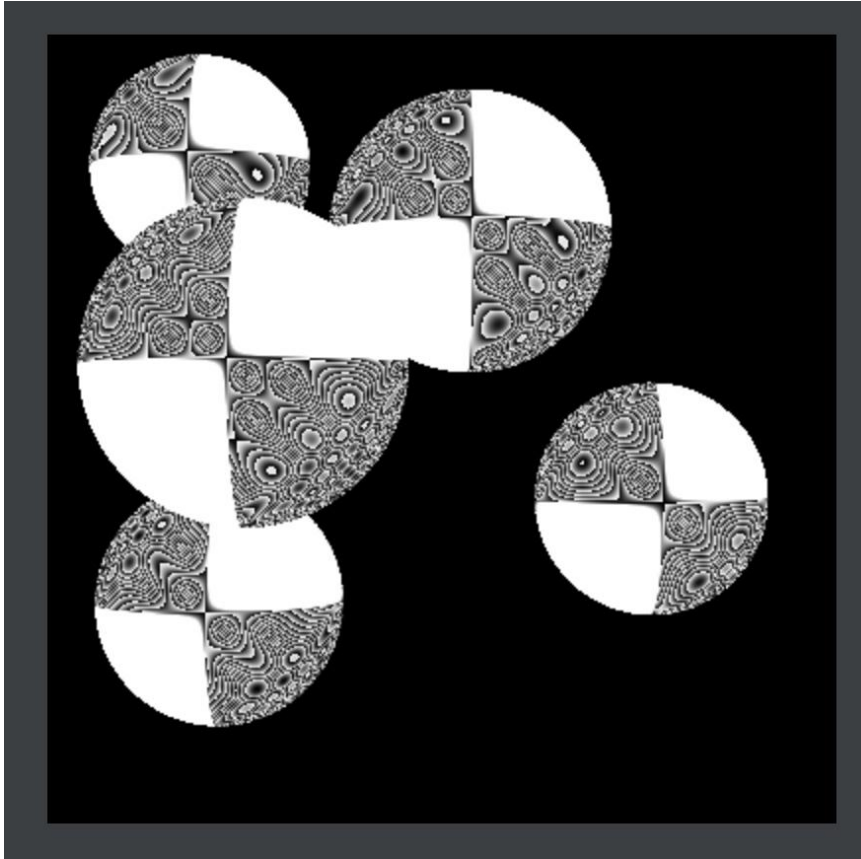
Raytracer: Reminder—Assignment 3

- produce shadows
    - trace rays from intersection point to light source and check for intersections
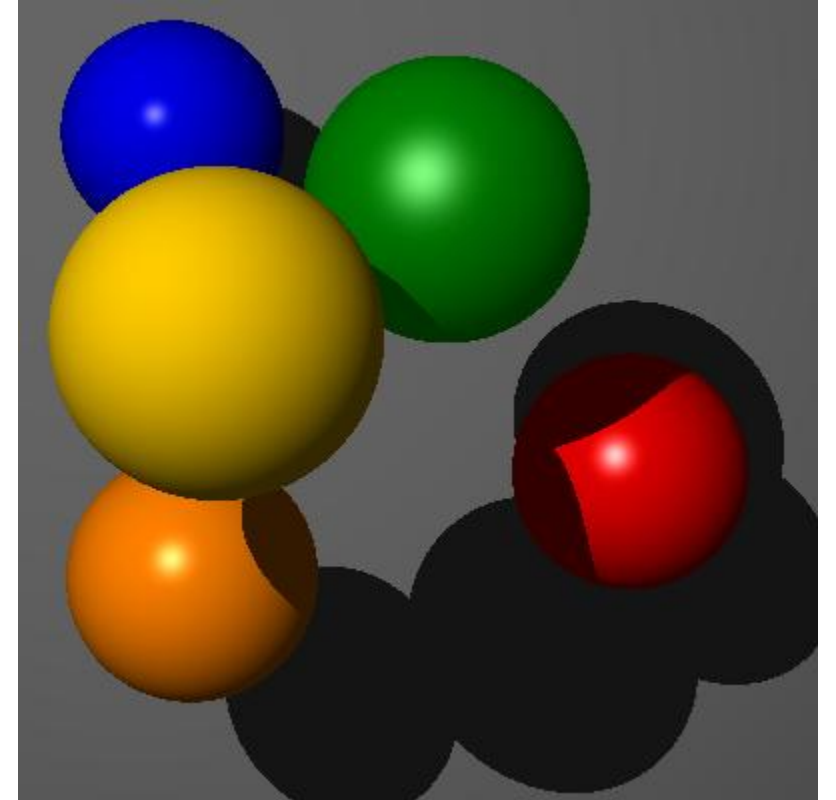
Raytracer: Reminder—Assignment 3

- correctly account for several light sources
  - illumination
  - shadows
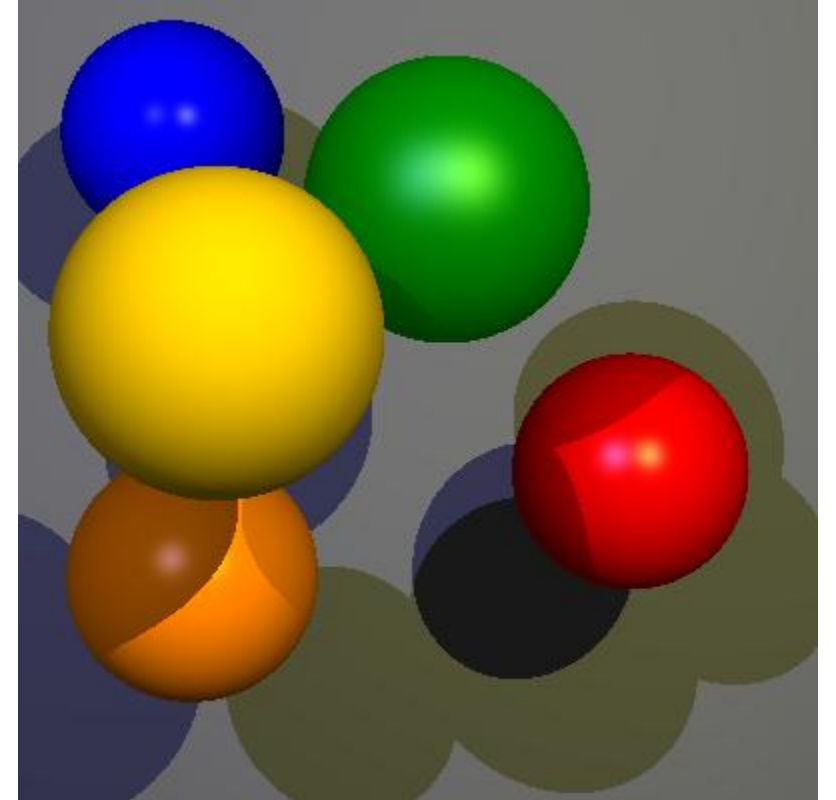
Raytracer: Reminder–Assignment 3

- implement reflections
  - **recursion**
  - from raycasting to raytracing:
    - new ray from intersection point in direction of reflected ray
    - limit recursion to maximum number (ray gets another parameter)
    - include the contribution according to specular coefficient
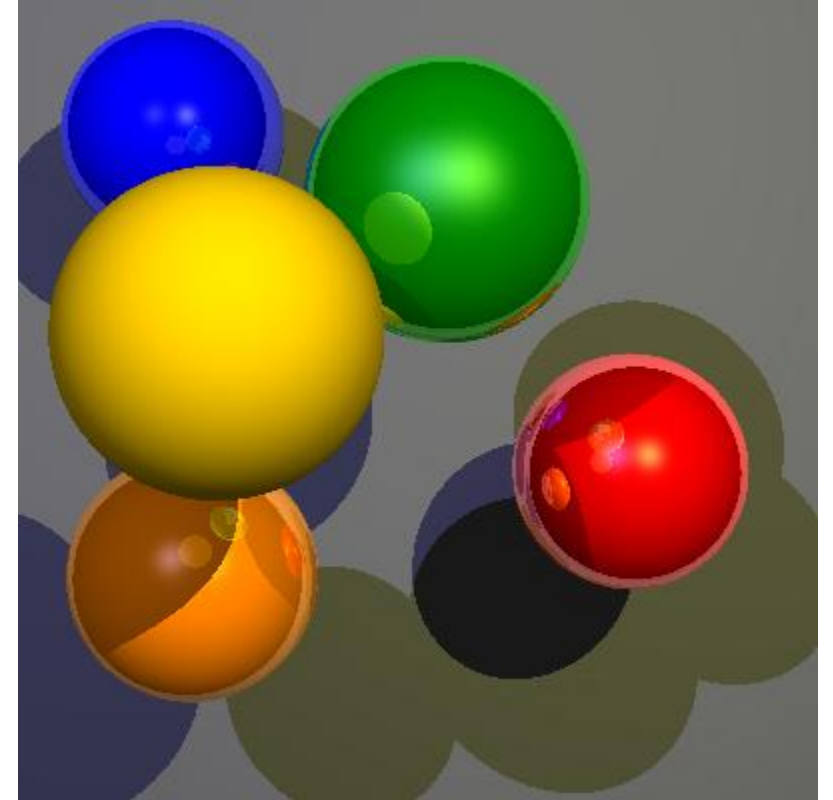
Raytracer: Reminder—Assignment 3

- bonus: implement refractions
- bonus: make reflections of geometry also blurred, like the highlights of the light
- bonus: implement your own (cool) scene
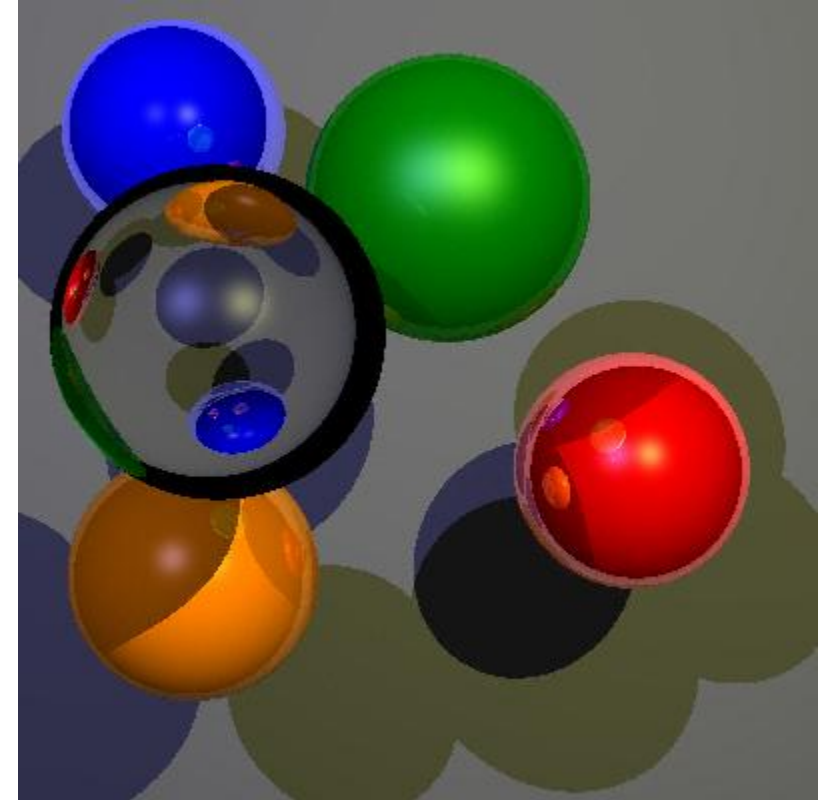
Raytracer: Assignment 4

- implement extended camera model
  - eye position
  - reference point (center) as in OpenGL
  - up vector
  - view size
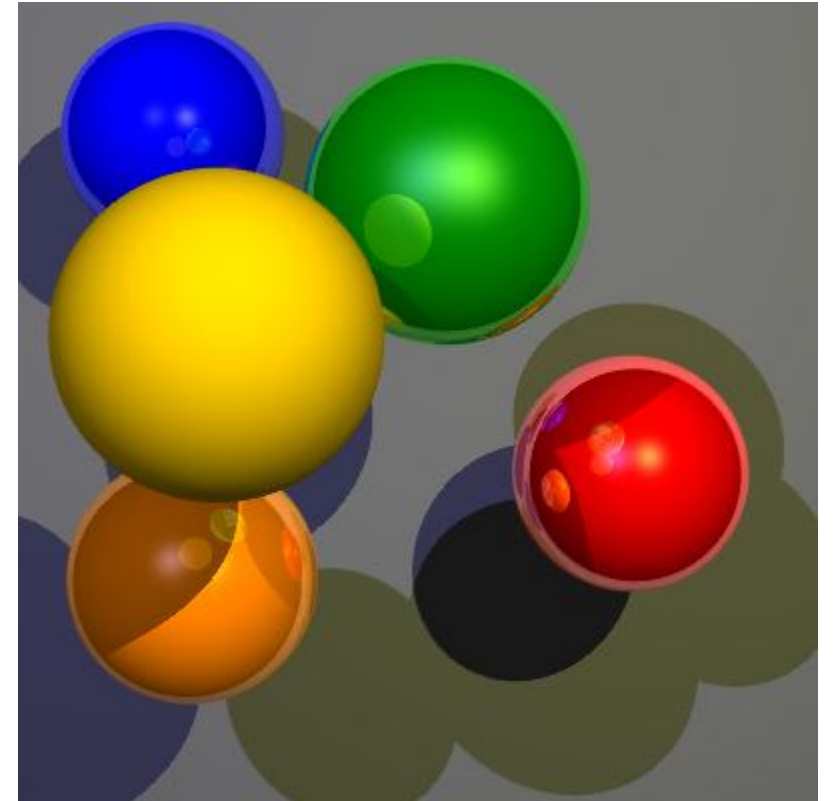
Raytracer: Assignment 4

- implement extended camera model
  - eye p
  - refer
  - up ve
  - view

Raytracer: Current camera model

Raytracer: New camera model

Raytracer: Assignment 4

- implement anti-aliasing (super-sampling)

Assignment schedule

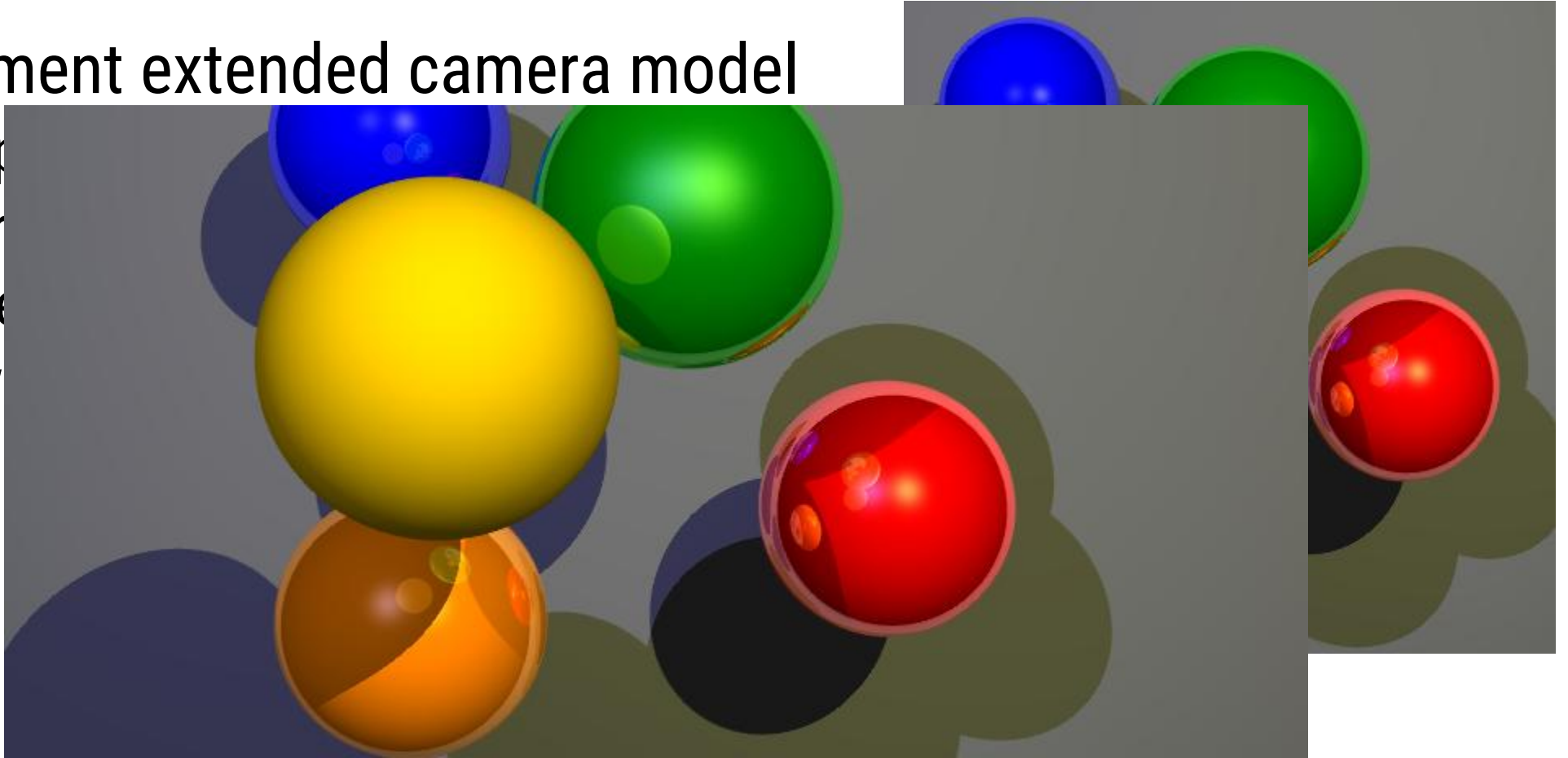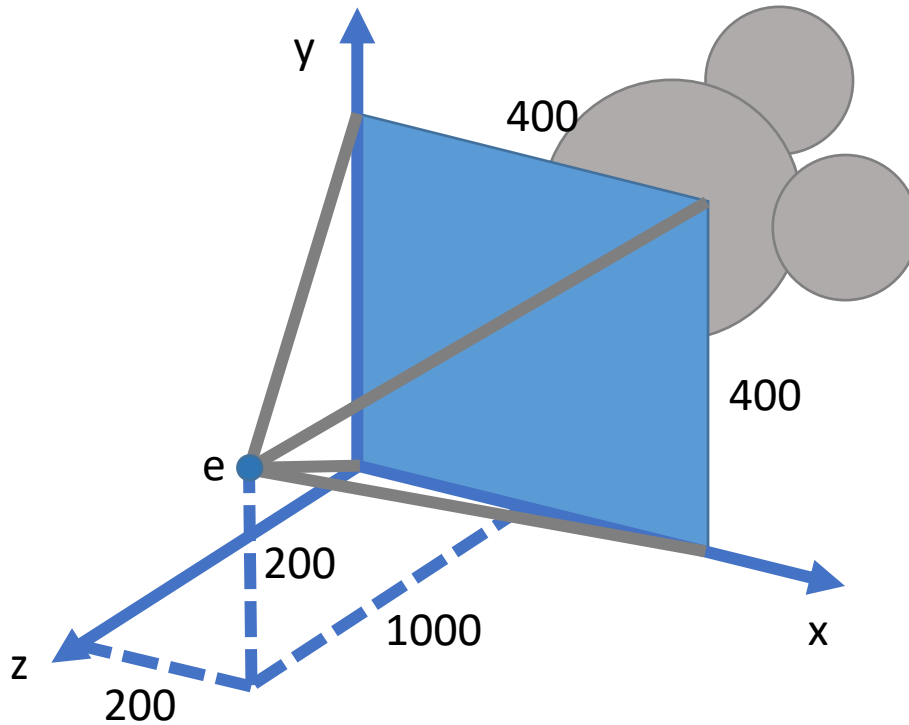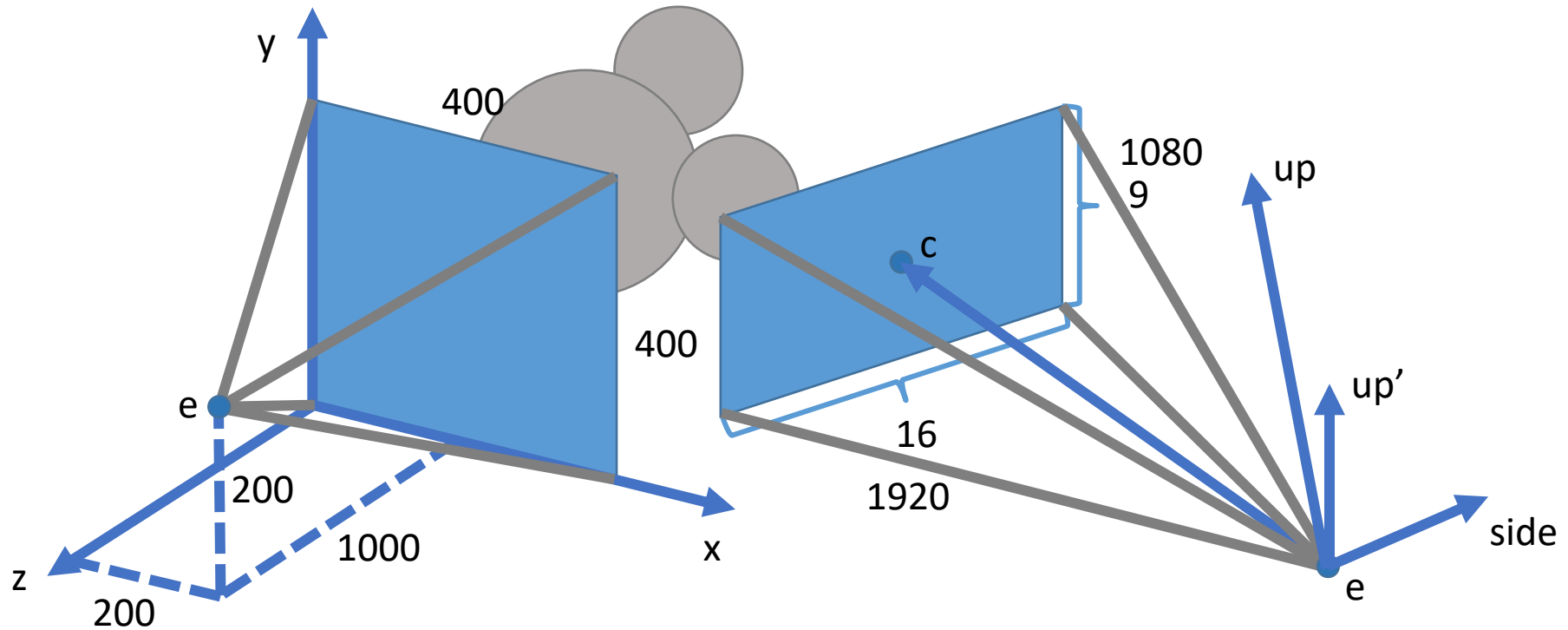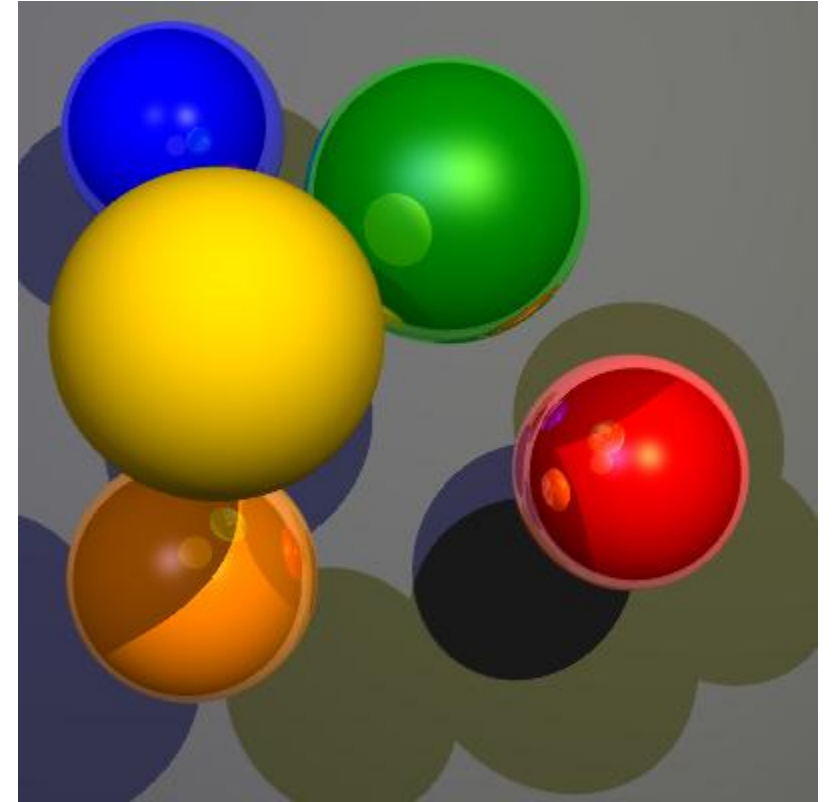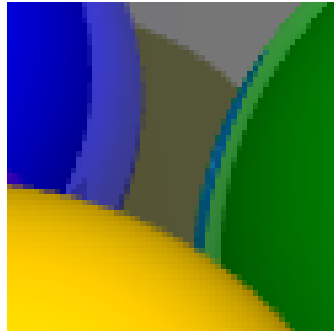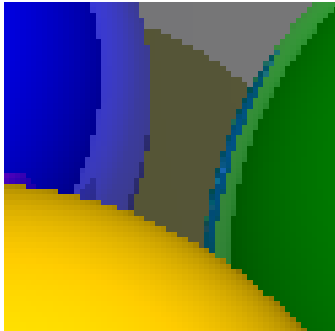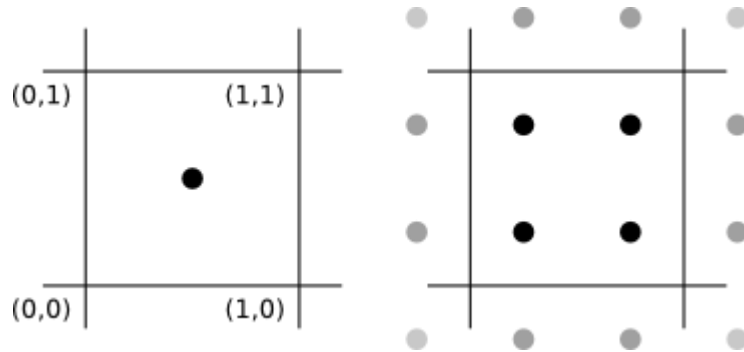| Assignment	Due date and time
Assignment 1: raycasting & Phong illumination	Tuesday, Jan. 20, 14:00
Assignment 2: buffers & additional geometry	Tuesday, Jan. 27, 14:00
Assignment 3: optical laws (reflection/refraction)	Monday, Feb. 2, 08:00 (am)
Assignment 4: anti-aliasing & extended camera model	Monday, Feb. 9, 08:00 (am)
Assignment 5: texture mapping & alternative illumination	Monday, Feb. 16, 08:00 (am)
Assignment 6: more geometries & 3D mesh files	Thursday, Feb. 19, 14:00
Final assignments: 3 additional tasks	T.B.D.