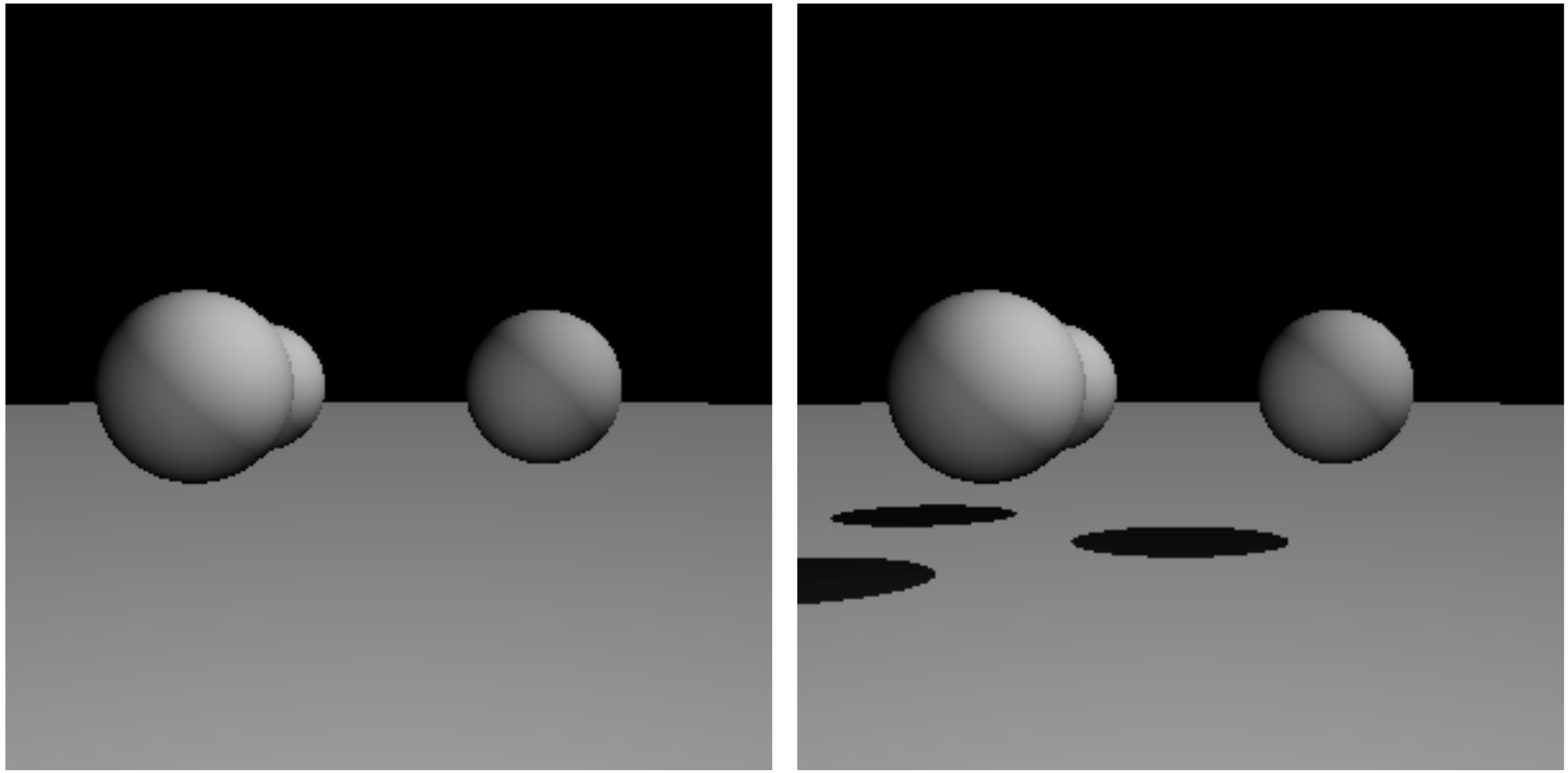


Computer Graphics

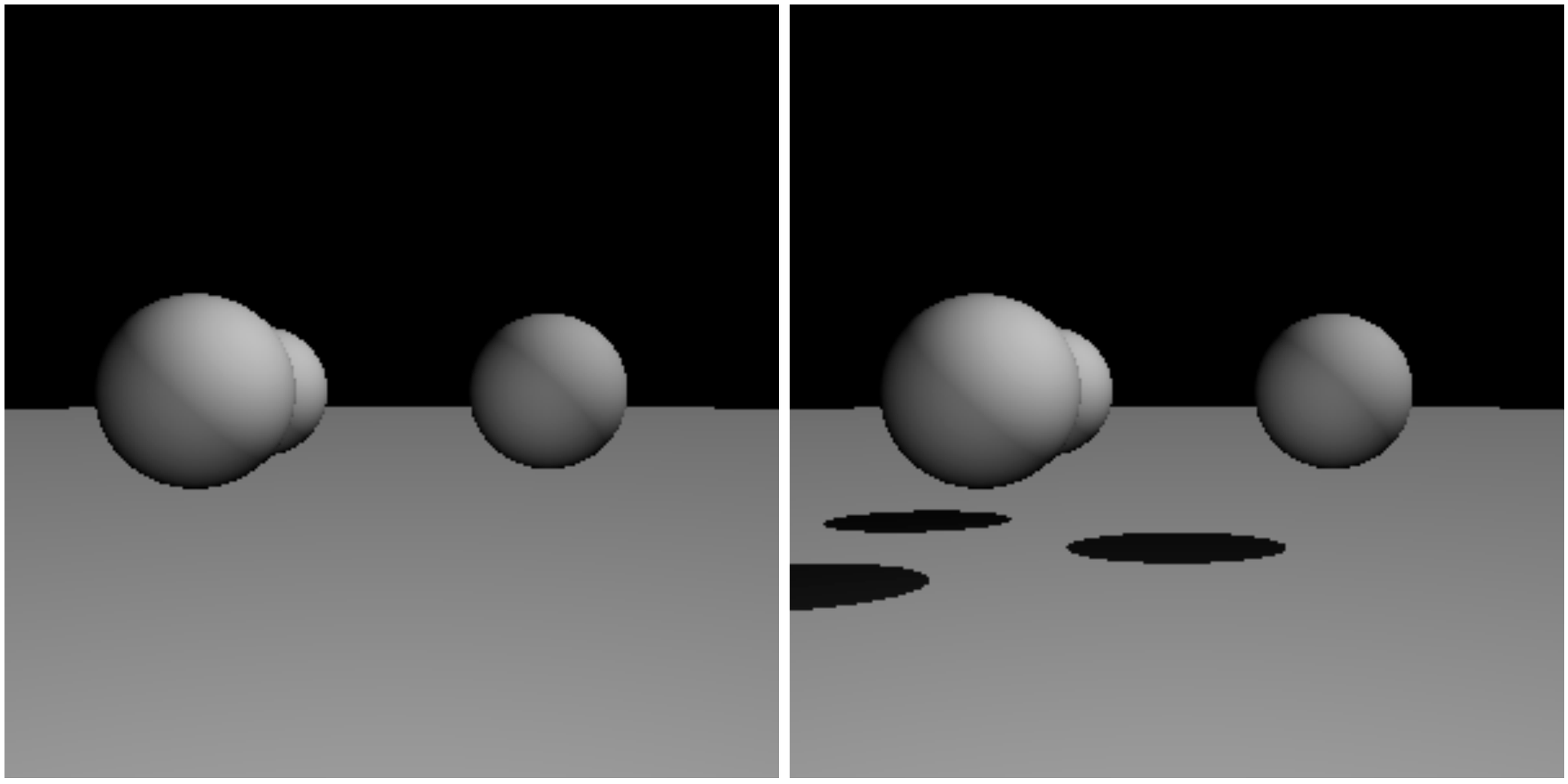
Lecture 10C

Shadows

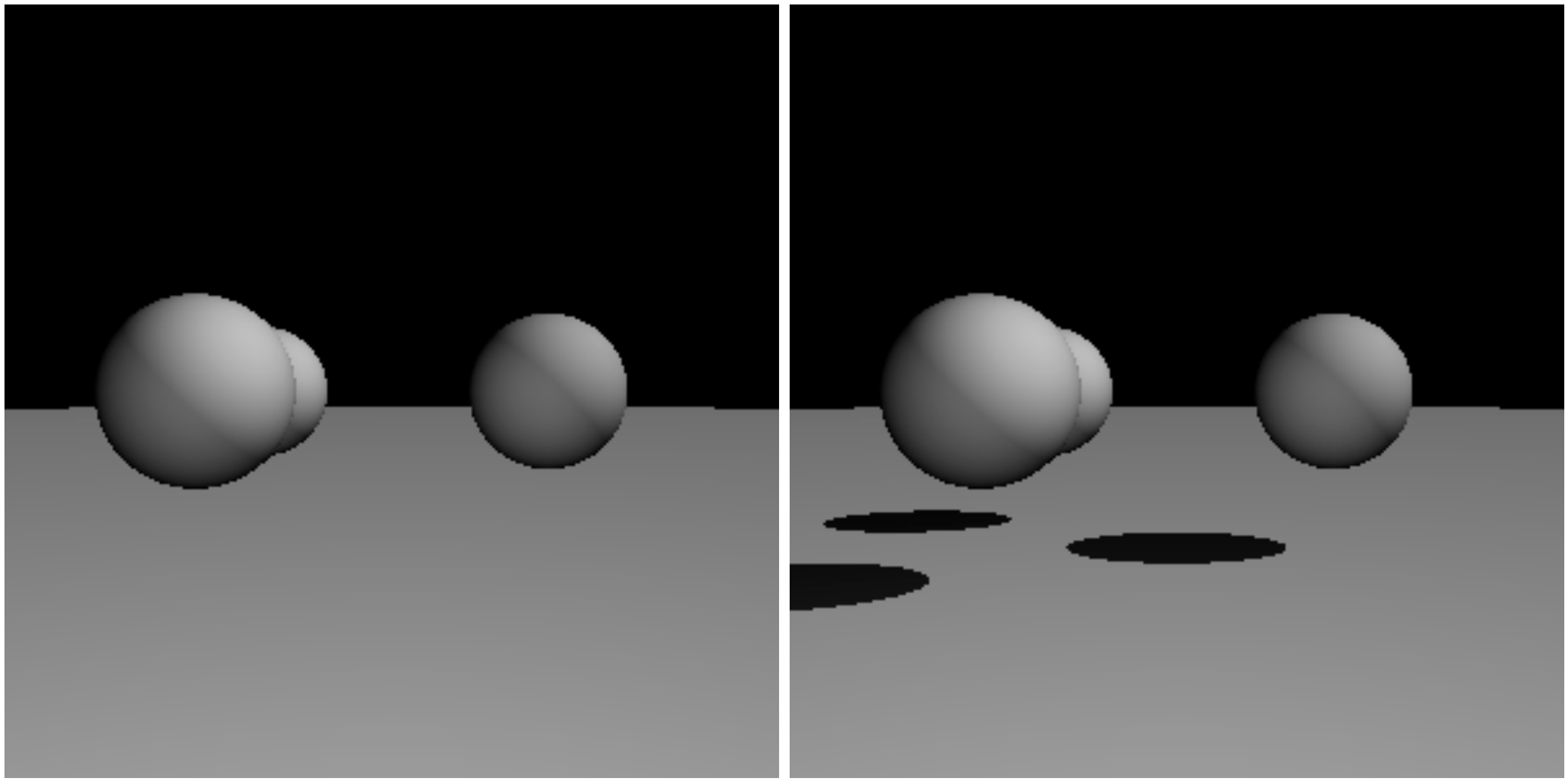
Goals

- Know how to generate shadow rays to determine whether a light source illuminates a point.

Shadows

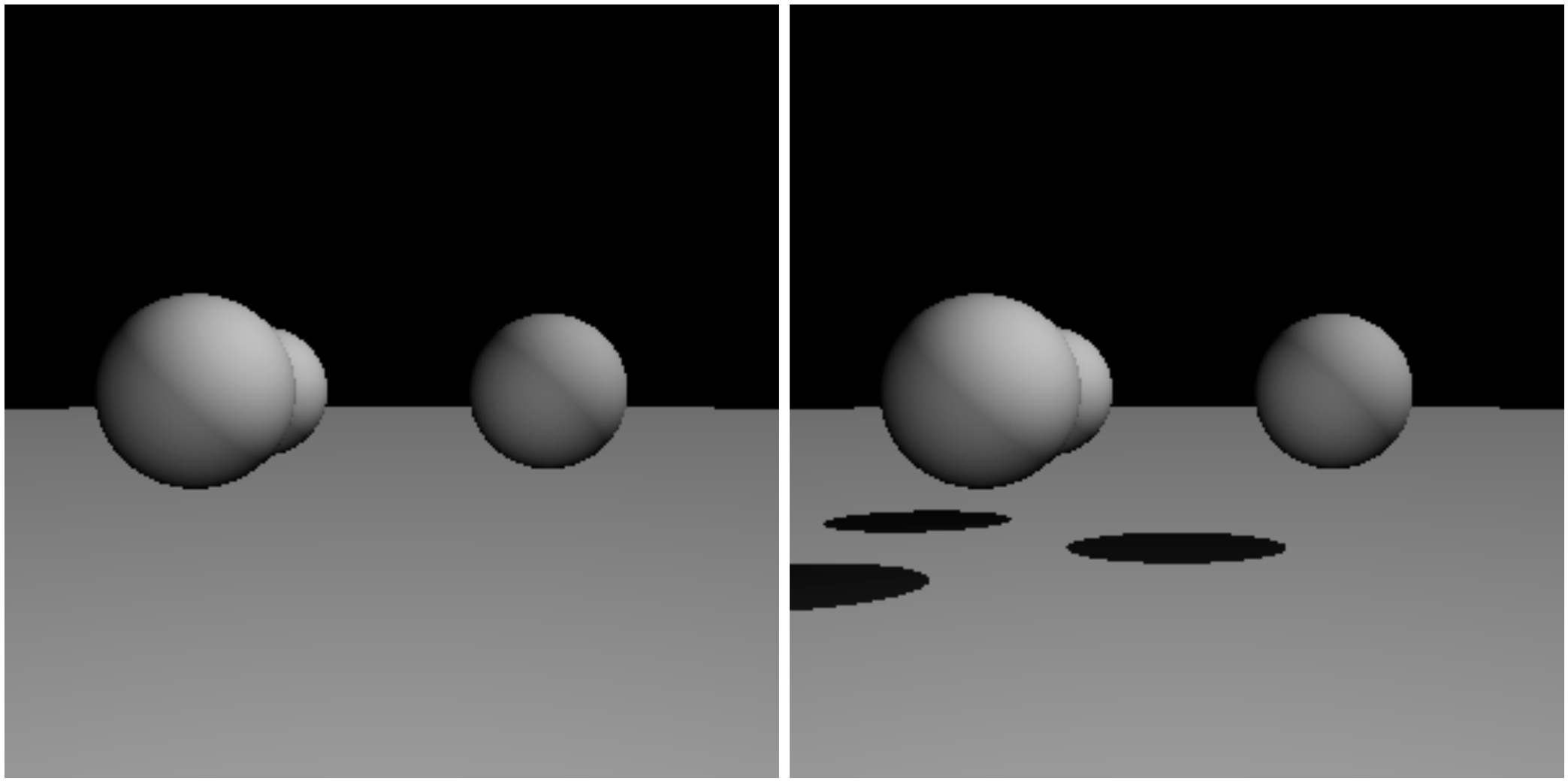


Shadows



Less Wrong

Shadows

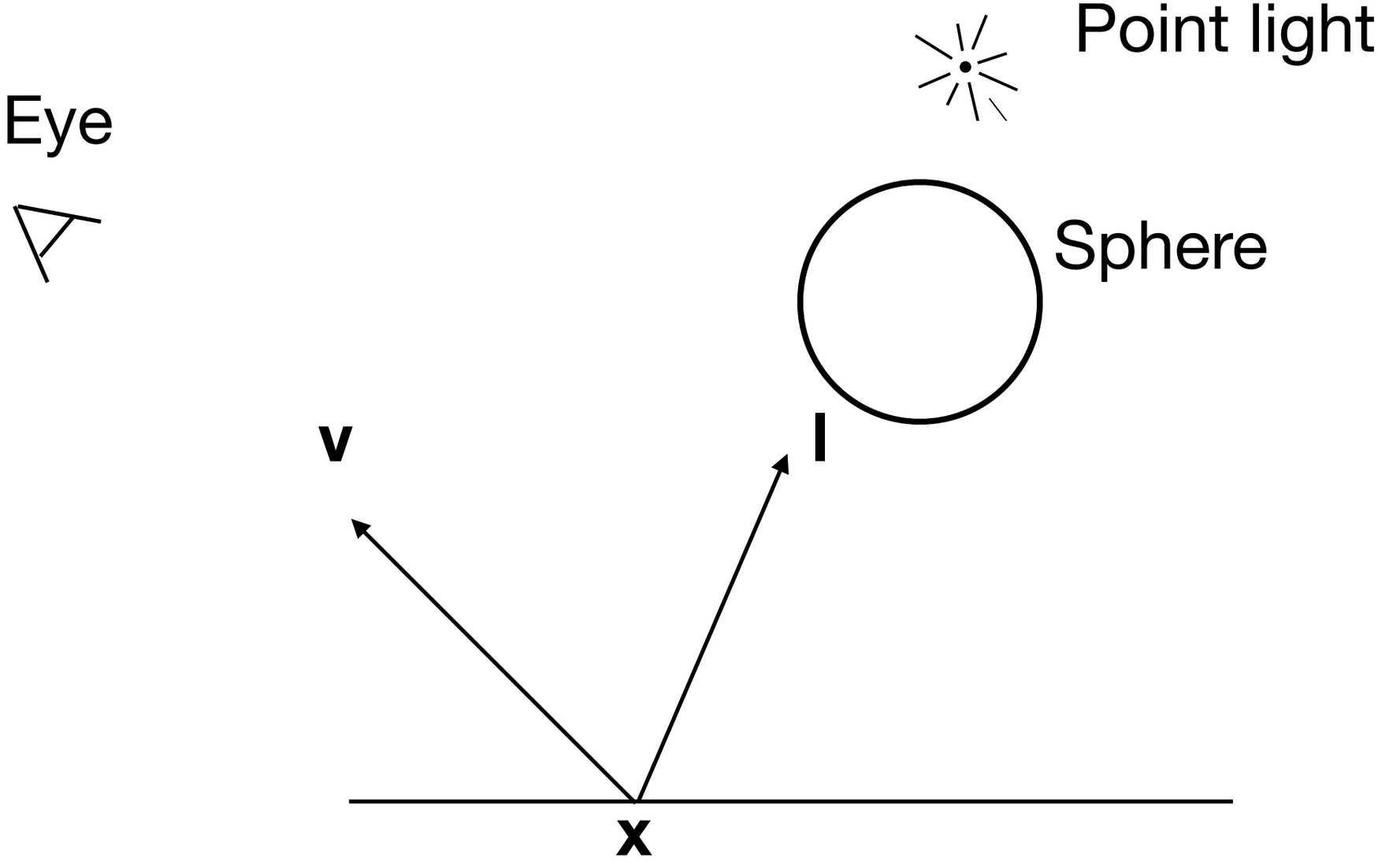


Wrong

Less Wrong

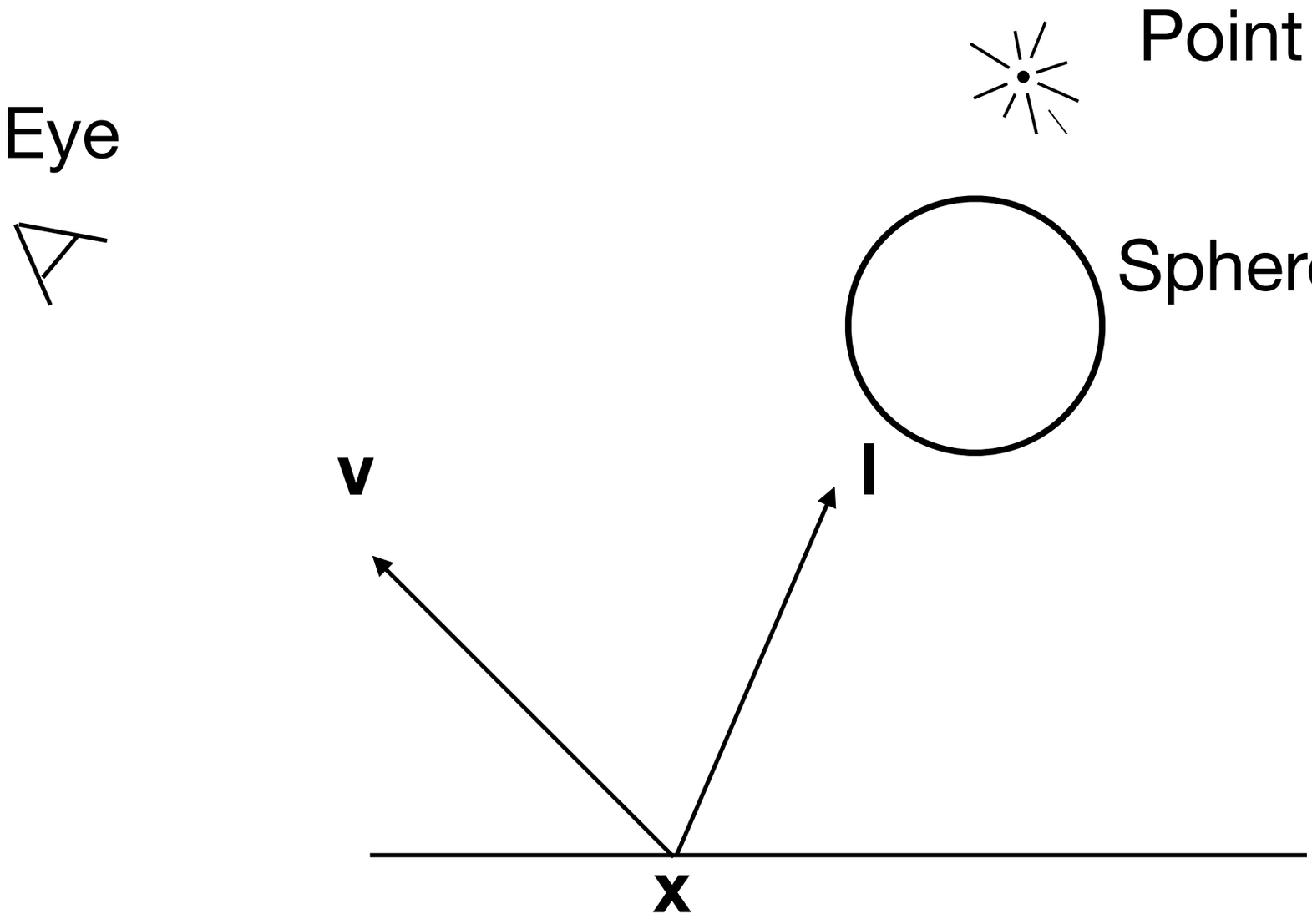
Shadows

How can we tell if a point is in shadow?



Shadows

How can we tell if a point is in shadow?



Point is shadowed iff:

```
ray_intersect(objs, Ray(x, l), tmin, tmax) != nothing
```

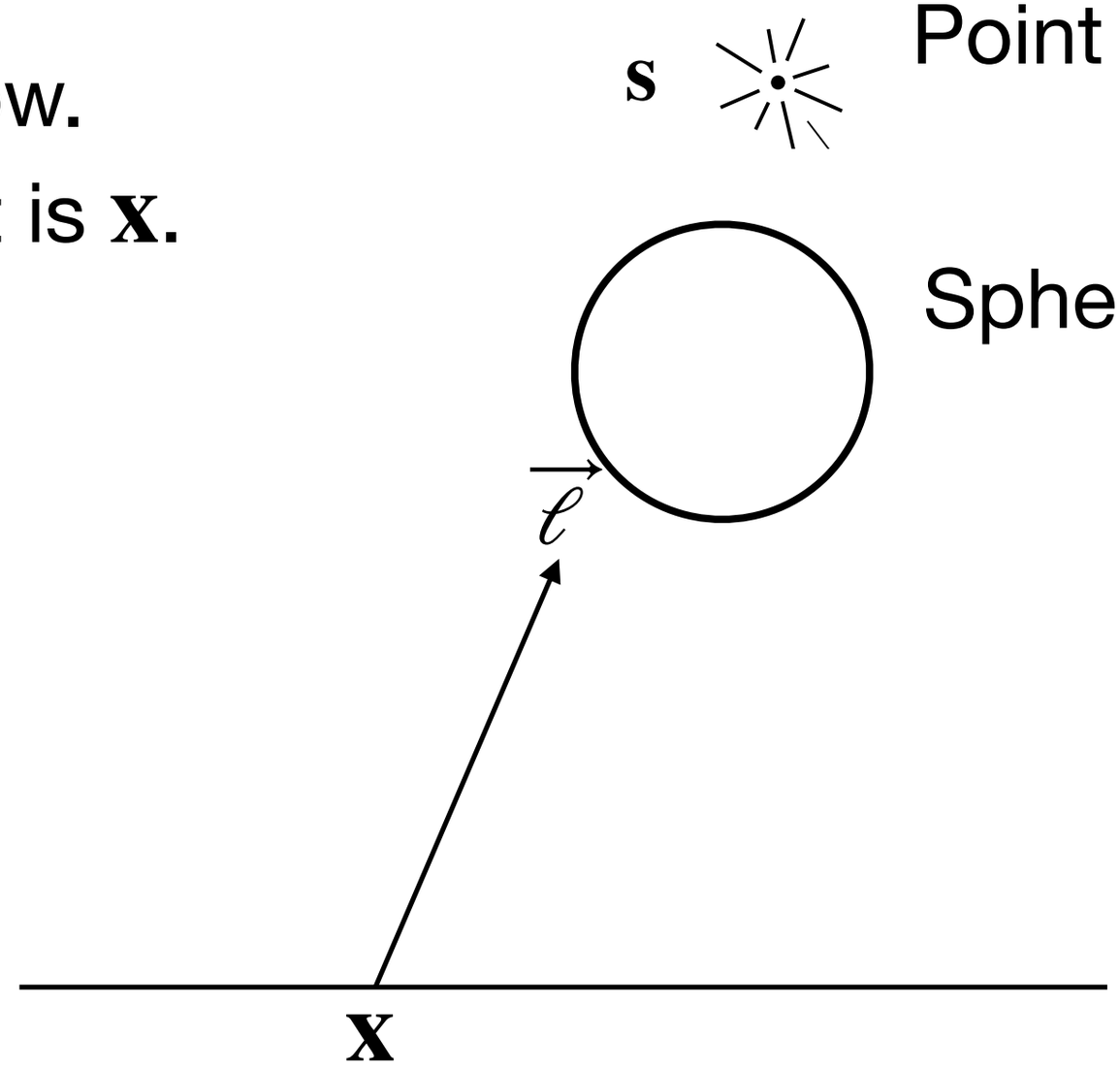
Shadows

How can we tell if a point is in shadow?

Exercise: Fill in the table below.

Assume the intersection point is **x**.

	Directional light $\vec{\ell}$	**Point light S**
`r.orig`	**x**	**x**
`r.dir`		
`tmin`		
`tmax`		



Point is shadowed iff:

`ray_intersect(objs, Ray(`**`orig, dir`**`), `**`tmin, tmax`**`) != nothing`