Z-Buffer Algorithm
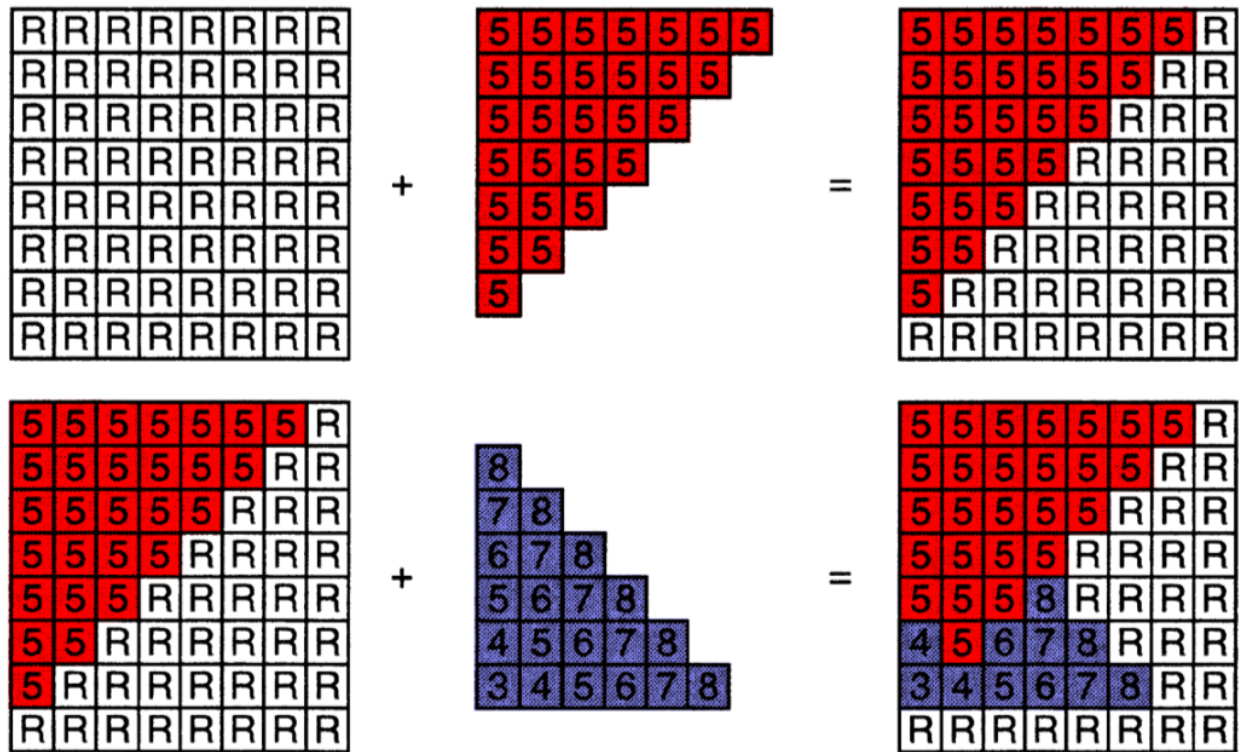

Perceptual Observations

Specular highlights

当光照射到一个光滑的表面时，光会沿着镜面反射附近的方向反射

Diffuse reflection

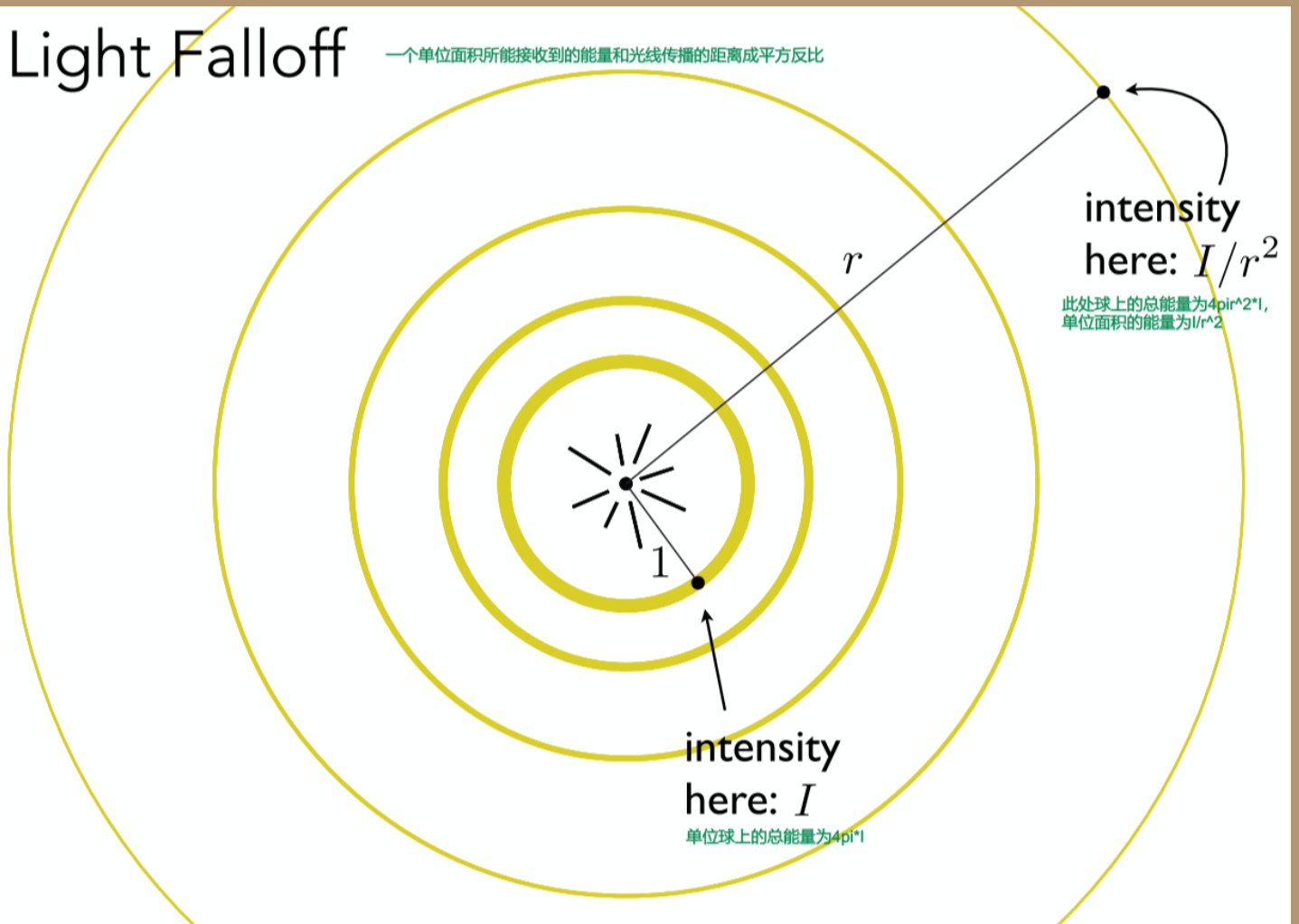当光照射到一个粗糙的表面时，光被反射到不同的方向

Ambient lighting

物体不仅会收到主光源的影响，还会受到环境光的影响

Photo credit: Jessica Andrews, flickr

Lambertian (Diffuse) Shading

Shading independent of view direction

energy arrived
at the shading point

$$L_d = k_d \left(I/r^2\right) \max(0, \mathbf{n} \cdot \mathbf{l})$$

diffuse
coefficient
(color)

energy received
by the shading point

漫反射系数，1表示
不吸收任何能量

diffusely
reflected light