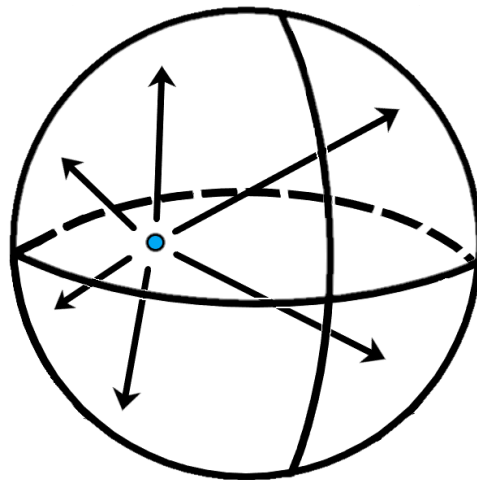# Blinding Sphere

The **light intensity** from a point source to another point in space is $1/r^2$, where r is the distance between the two points. This ensures that as light travels outward from a point in an expanding sphere the total light intensity is constant, because the sphere's area grows proportional to r^2.

Problem: If every point on a unit sphere is a light source, find the average intensity experienced by a point which is p units from the center.