

Q1. Give the symbol and units used for each of the following:

flux

irradiance

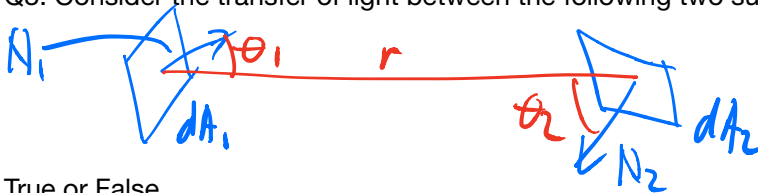
radiant intensity

radiance

radiosity

Q2. What are the physical units that correspond to observed brightness, ie, what a camera sensor or that cells in the eye ultimately measure?

Q3. Consider the transfer of light between the following two surfaces:



True or False

- irradiance is invariant with the distance r
- flux transfer is invariant with the distance r
- radiance is invariant with the distance r

Q4. For the above scene, given the radiance, L , develop an expression for the flux transfer between the two surfaces.

Q5. A 10 W point light distributes light equally in all directions, as shown below.

What is the flux received by area dA ?

What is the irradiance received by a point on area dA ?

Suppose that the surface has a BRDF defined by

What is the observed radiance in the given viewing direction V ?

