Computer Graphics
– Lighting II (Questions)

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Possible Questions

Name two different light casters.

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Point light

Directional light

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- The reduction of the intensity of light over distance is attenuation

- In the real world, lights are generally quite bright standing close by, but the brightness of a light source diminishes quickly at the start and the remaining light intensity more slowly diminishes over distance
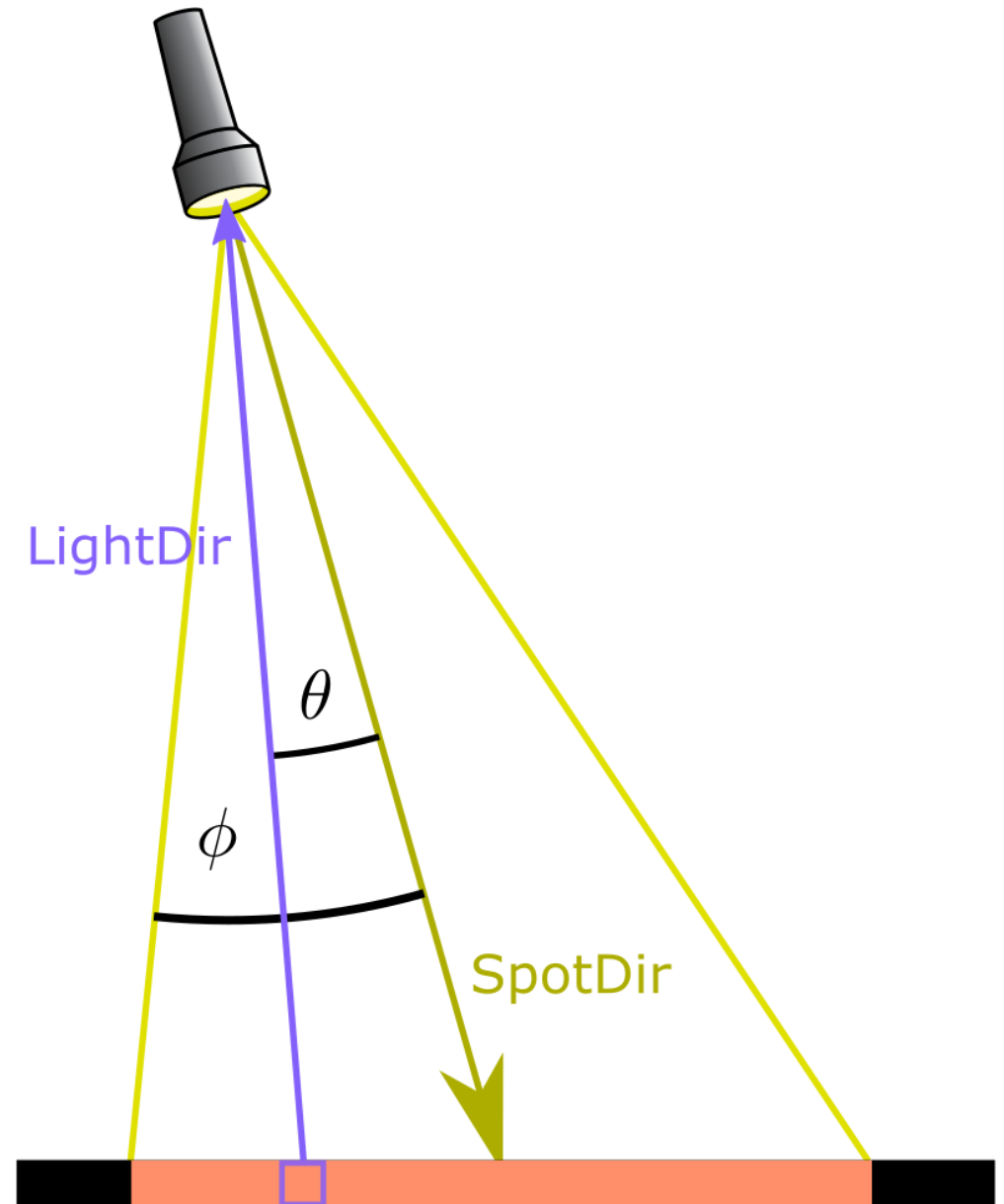
Possible Questions

Sketch the idea of a spotlight and explain it.

- LightDir: the vector pointing from the fragment to the light source

- SpotDir: the direction the spotlight is aiming at

- Phi ϕ: the cutoff angle that specifies the spotlight's radius (outside this angle is not lit)

- Theta θ: the angle between the LightDir vector and the SpotDir vector. θ should be smaller than ϕ to be inside the spotlight

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Linear attenuation in $[\phi, \gamma]$:

$$I = \frac{\theta - \gamma}{\phi - \gamma}$$