

- (6b) (6 points) In path tracing, we discussed two types of importance sampling: sampling over the surface of light sources, or sampling the BRDF in the directions where it is large.

GLaDOS is considering a point on the surface of a material at which there is a very shiny BRDF and light source that subtends a large solid angle. To obtain a more accurate image, would it be better for GLaDOS to importance sample the lights or the BRDF, and why?

- (e) (1 point) ____ If we switch the incident and outgoing directions, an anisotropic BRDF will give us different values.
- (m) (1 point) ____ Total internal reflection can only happen when light approaches a material with a smaller index of refraction.
- (2e) (1 point) ____ With the microfacet BRDF model, the surface will appear more shiny if the microfacet normal distribution function is more concentrated about the surface normal.
- (2f) (1 point) ____ An anisotropic BRDF is effectively a three-dimensional function.
- (4c) (6 points) In path tracing, we discussed two types of importance sampling: sampling over the surface of light sources, or sampling the BRDF in the directions where it is large.

Your friend is considering a point on the surface of a material at which there is a diffuse BRDF and light source that subtends a very small solid angle. To obtain a more accurate image, would it be better for your friend to importance sample the lights or the BRDF, and why?

- (1r) T ☐ F ☐ A microfacet BRDF with a concentrated normal distribution function will appear matte.