Computer Graphics II
– Advanced Lighting (Questions)

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Possible Questions

What is the difference between Blinn-Phong (BP) and Phong shading?

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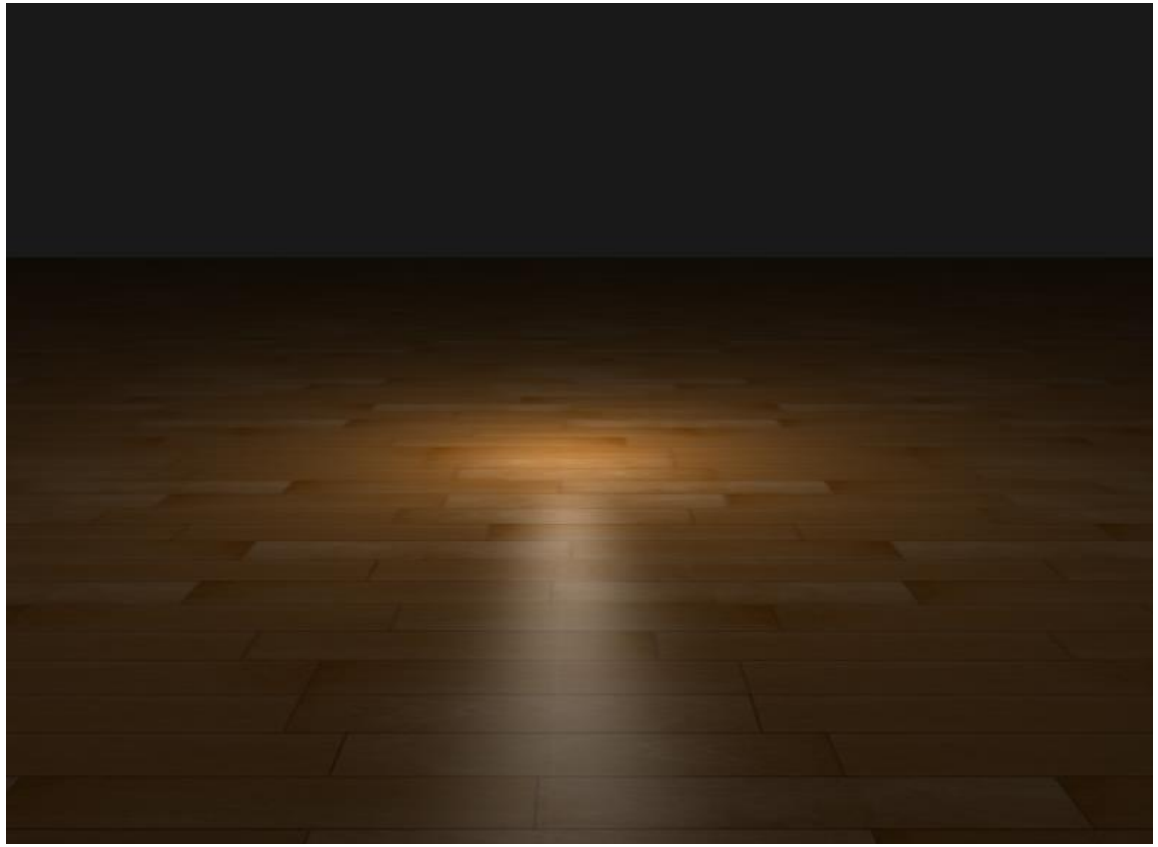
- Instead of using a reflection vector, BP uses a halfway vector (unit vector halfway between the view direction and the light direction)

Possible Questions

Which image corresponds to BP?



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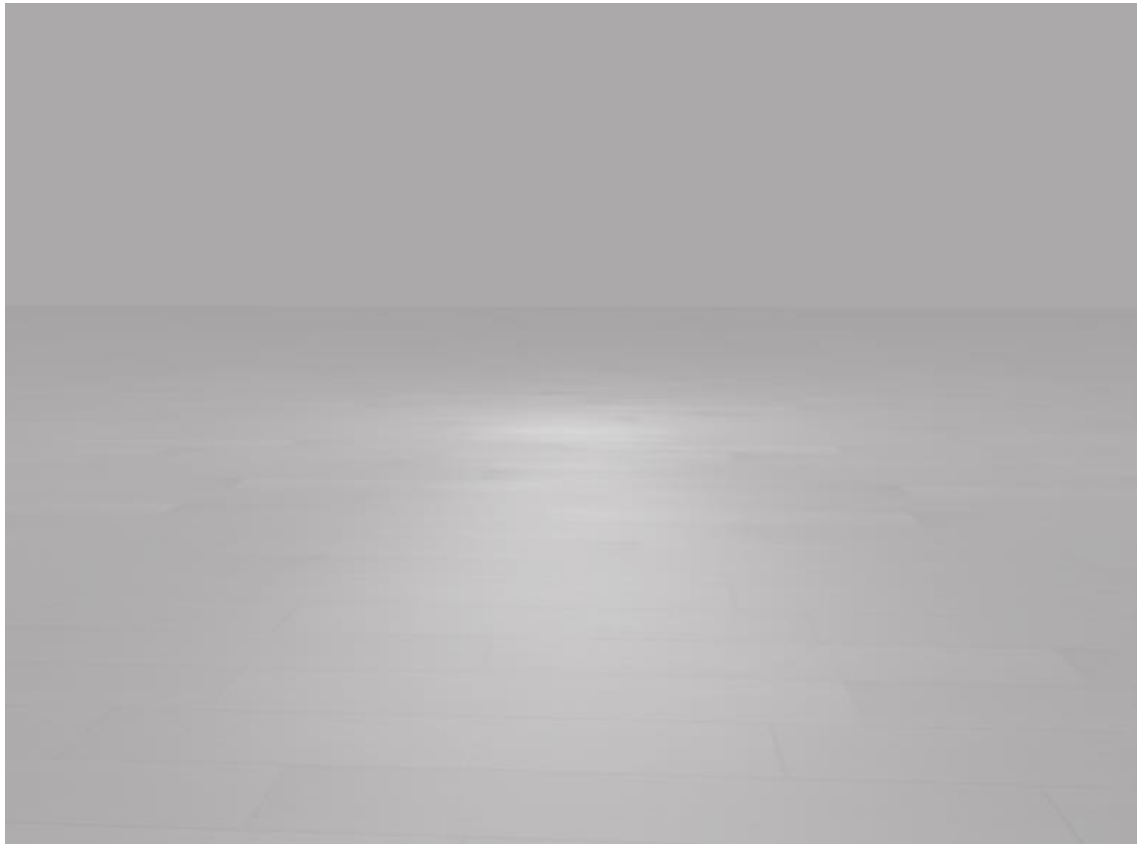

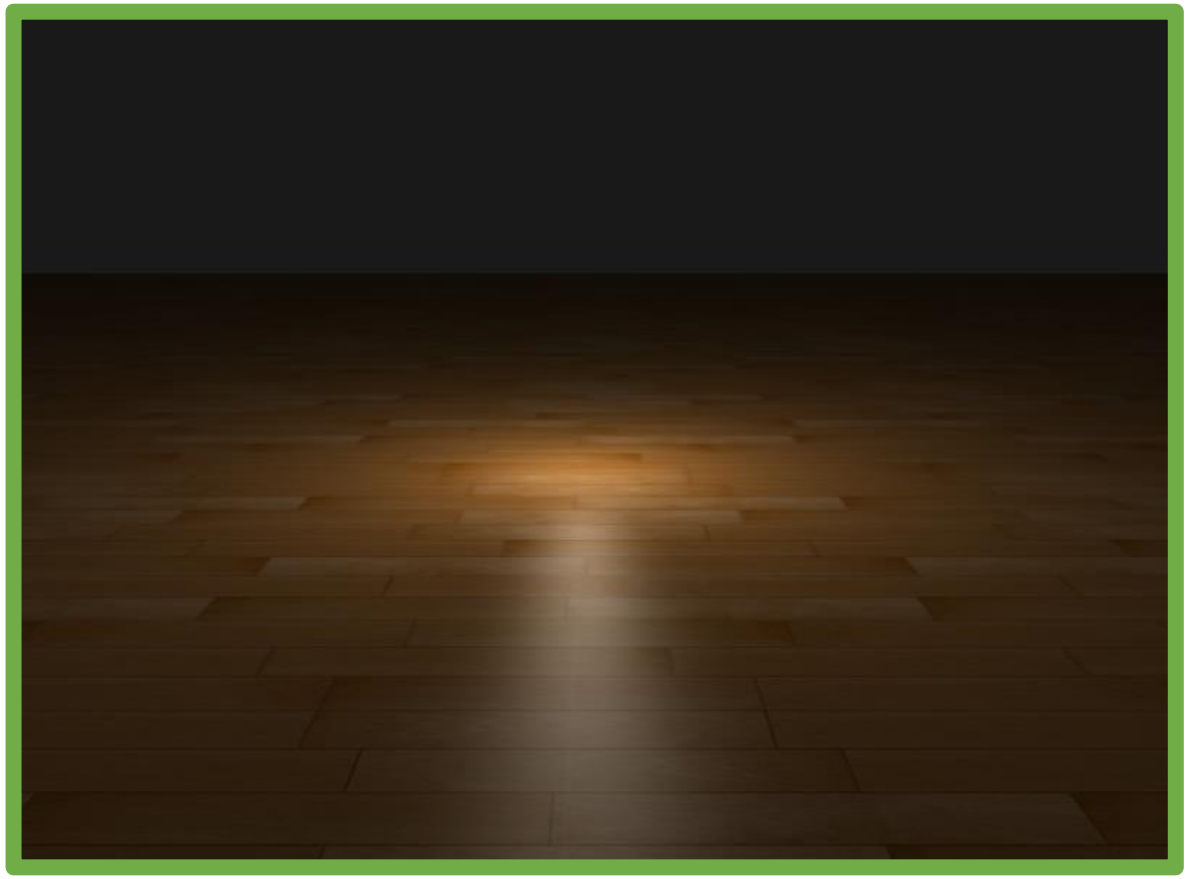

Possible Questions

Correct the BP shader:

```
float spec = 0.0;
if(blinn)
    {
        vec3 halfwayDir = normalize(lightDir + viewDir);
        vec3 reflectDir = reflect(-lightDir, normal);
        spec = pow(max(dot(normal,              ), 0.0), 32.0);
    }
```

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What is rim lighting?

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- Effect that simulates light around an object, light source placed behind the object
- Produces a bright rim of light around the contours of the object

Possible Questions

Apply gamma correction at the end of this fragment shader:

```
uniform float gamma;

void main()
{
    …

    FragColor.rgb =                                    ;
}
```

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Apply gamma correction at the end of this fragment shader:

```
uniform float gamma;

void main()
{
    …

    FragColor.rgb = pow(FragColor.rgb, vec3(1.0/gamma));
}
```