Computer Graphics II
– Parallax Mapping (Questions)

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Possible Questions

What is the difference between normal and parallax mapping?

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- Parallax mapping is a displacement mapping techniques (displace vertices based on geom. information stored inside a texture)
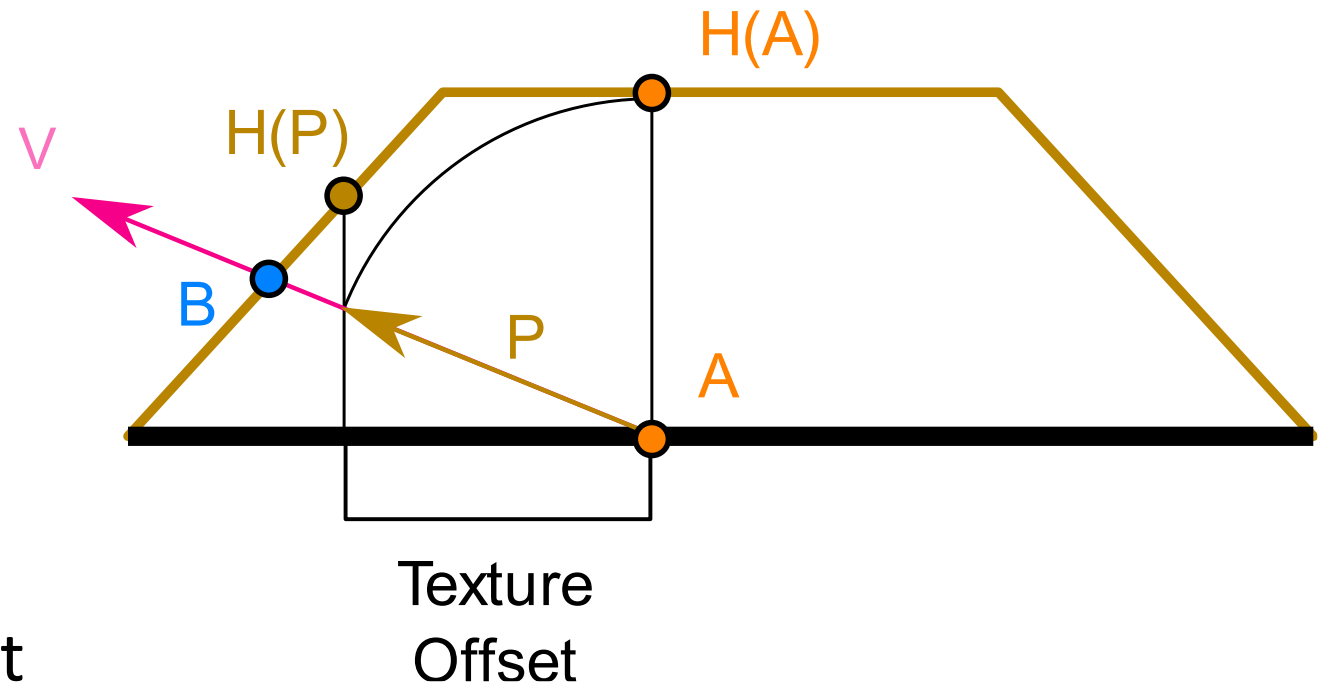
Possible Questions

Explain the idea of parallax
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- Parallax mapping scales the fragment-to-view direction vector V by the height at fragment A

- Scale the length of V to be equal to a sampled value from the heightmap H(A) at fragment position A

Possible Questions

Complete the ParallaxMapping function:

```
vec2 ParallaxMapping(vec2 texCoords, vec3 viewDir)
{
    float height = texture(depthMap, texCoords).r;
    vec2 p = viewDir.xy / [_____] * ([_____] * heightScale);
    return texCoords - p;
}
```

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Complete the ParallaxMapping function:

```glsl
vec2 ParallaxMapping(vec2 texCoords, vec3 viewDir)
{
    float height = texture(depthMap, texCoords).r;
    vec2 p = viewDir.xy / viewDir.z * (height * heightScale);
    return texCoords - p;
}
```