Light Fields

1. **Plenoptic Function**

    a. The plenoptic function is typically described as having 5 parameters...what are these parameters?

    b. What value is returned by the plenoptic function?

2. **Light Fields**

    a. A light field is typically described as a function having 4 parameters...what are these parameters?

    b. What value is returned by a light field?

    c. Why is it possible to only use 4 parameters and yet have the function cover an entire volume of free space like a hallway?

    d. One can think of a light a field as a 2D array of_____.

3. Compression

The Steam app Welcome to Light Fields by Google uses real-time decompression to render the light field.

a. What way of organizing the data makes real-time decompression and rendering possible?

b. Describe the data access pattern that occurs when rendering an image from a light field. How does this access pattern work with the compressed data structure to make real-time rendering possible?