The explanation of the Question and the distances

Yes, if we have the actual diameter of each pole, the horizontal field of view (HFOV) of the camera, and some additional information about the image, we can estimate the depth from the camera to each pole.

To calculate the depth, we need to know either the apparent size of the poles in the image (in pixels) or the angle subtended by the poles in the image. With this information, we can use trigonometry to estimate the distance.

In this example we will use the apparent size of the poles in the image:

Measure the apparent size of each pole in the image (in pixels). I measured it using adobe Photoshop software application, Pole A has an apparent size of 166 pixels, Pole B has an apparent size of 60 pixels, and the total image width in pixels is 4000 pixels.

Calculate the angular size of each pole. To do this, divide the apparent size of each pole by the total horizontal field of view (HFOV) of the camera. In this case, if HFOV is 72 degrees:

Angular Size of Pole A = (166 pixels / total image width in pixels) * 72 degrees = 2.988

Angular Size of Pole B = (60 pixels / total image width in pixels) * 72 degrees = 1.08

Calculate the distance to each pole using the actual diameter and the angular size. Let's assume the actual diameter of Pole A is 15 cm and Pole B is 10 cm:

Distance to Pole A = (Actual Diameter of Pole A / 2) / tan(Angular Size of Pole A) =143.68 cm = 1.4368 m

Distance to Pole B = (Actual Diameter of Pole B / 2) / tan(Angular Size of Pole B) =265.2268 cm = 2.652 m

By performing these calculations, you can estimate the depth from the camera to each pole in the image. We have to keep in mind that this is an estimation and may not be absolutely accurate due to various factors like lens distortion or other image-related considerations.