Lab 8- Parallax

EMOTIONAL ENTITY: PARALLAX
Measuring Distances
How it Works

Viewpoint A

Object

Viewpoint B

Distant background

Viewpoint A

Viewpoint B
Finding Distances

- Large shift = nearby object
- Small shift = farther object
- \[ d = \frac{b}{2} / \tan(\alpha/2) \]
- \[ d = 57.3 \times \frac{b}{2} / \theta \]
- \[ \theta = \alpha/2 \]
Finding Distances

- Large shift = nearby object
- Small shift = farther object
- \[ d = \frac{b}{2} \tan\left(\frac{\alpha}{2}\right) \]
- \[ d = 57.3 \times \frac{b}{2} / \theta \]
- \( \theta = \alpha / 2 \)
Units

- 1 degree = 60 arcminutes
- 1 arcminute = 60 arcseconds
- Size of the full moon ≈ 0.5 arcminutes = 30 arcseconds
- Index finger extended out = 1 arcminute
- Fist extended = 10 arcminutes
Notes for this Lab

- Be careful with units! Remember, unit conversions were covered in the intro lab- refer back to it if you need to!
- Use metric when measuring distances.
- Don't move your head when making parallax measurements unless the lab explicitly tells you otherwise.