how do we know how far things are

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how do we know how far things are?

this will be our leading question

enjoy :)

parallax, mostly

parallax

this may be what you're picturing :)

Figure: Parallax as seen looking out a moving car's window[0].

[0] Image: https://stock.adobe.com/images/view-out-the-car-window-as-the-scenery-blurs-by/193746850

parallax

two types of parallax

parallax

two types of parallax

moving parallax

stationary parallax

parallax

two types of parallax

moving parallax

- involves movement

stationary parallax

- does not

parallax

two types of parallax

moving parallax

- involves movement
- things close to observer appear to move more, things farther appear to move less

stationary parallax

- does not
- the change in an objects appearance from two different locations (at once or at different times)

parallax

two types of parallax

moving parallax

- involves movement
- things close to observer appear to move more, things farther appear to move less

stationary parallax

- does not
- the change in an objects appearance from two different locations (at once or at different times)

(these are actually the same, kinda. motion is just being in two places at different times :))

moving parallax

moving parallax car picture again here look

Figure: Parallax as seen looking out a moving car's window again[0].

[0] Image: https://stock.adobe.com/images/view-out-the-car-window-as-the-scenery-blurs-by/193746850

stationary parallax

like human eyes, for example
this is how depth perception works

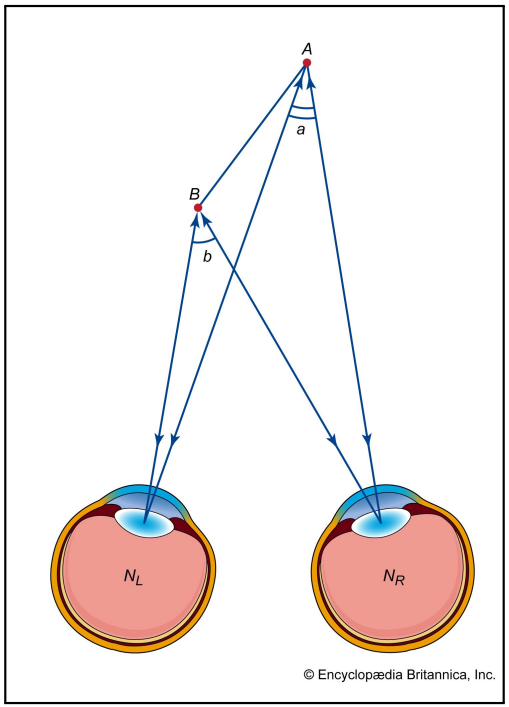

Figure: Eyes doing parallax[0].

[0] Image: https://cdn.britannica.com/85/4085-050-5575ACA3/parallax-points-NL-eyes-NR-left.jpg

summary

we know how far things are away from us
because we have EYES dipshit

ok but what about numbers

like what if we want to MEASURE a distance