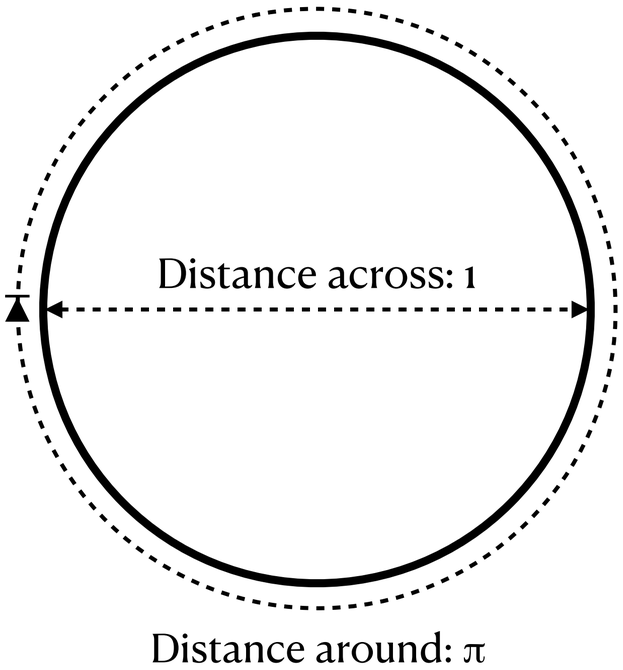
ok what's the plan

- what i mostly want to get at is the significance of π, i and e and why it's powerful to have such a succinct equation that ties them all together
- 1 and 0 are also very significant! but everyone is familiar with these
- respectively, they're the multiplicative and additive identity, meaning that multiplying anything by 1 gives you back what you started with, and adding anything to 0 gives you what you started with. identities are super important in abstract algebra (as in life) to guarantee that different kinds of sets behave coherently! but i'm not going to go into that here!

π

The crowd favorite

it's the ratio of a circle's circumference to its diameter... *any* circle



π is about circles, pies are circular, what's not to like

timeless classics of grade school:

circumference $C = 2\pi r$

area $A = \pi r^2$

3.14159 and so forth

some people like to memorize hella digits of pi but to paraphrase NASA, 39 or 40 digits is enough to calculate the circumference of the known universe (whose radius is about 46 billion light years) with an error no greater than the diameter of a hydrogen atom