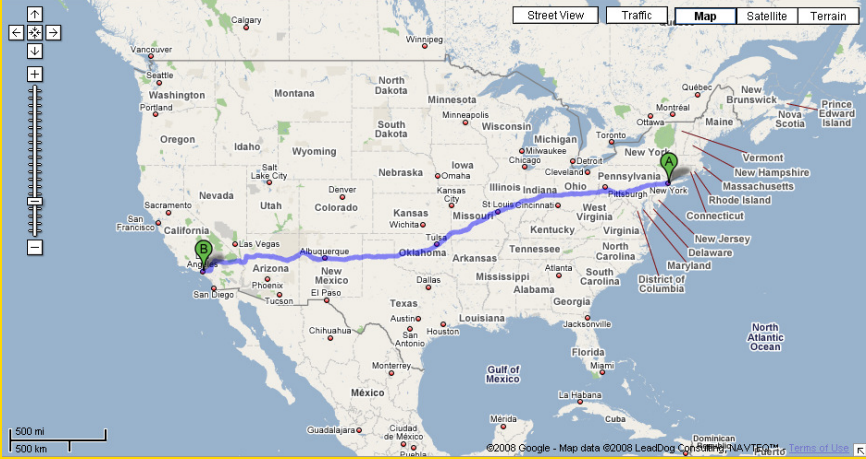
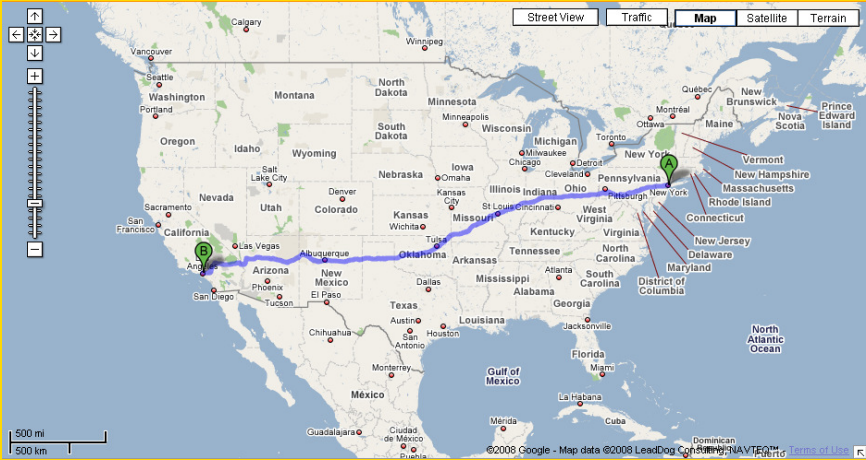


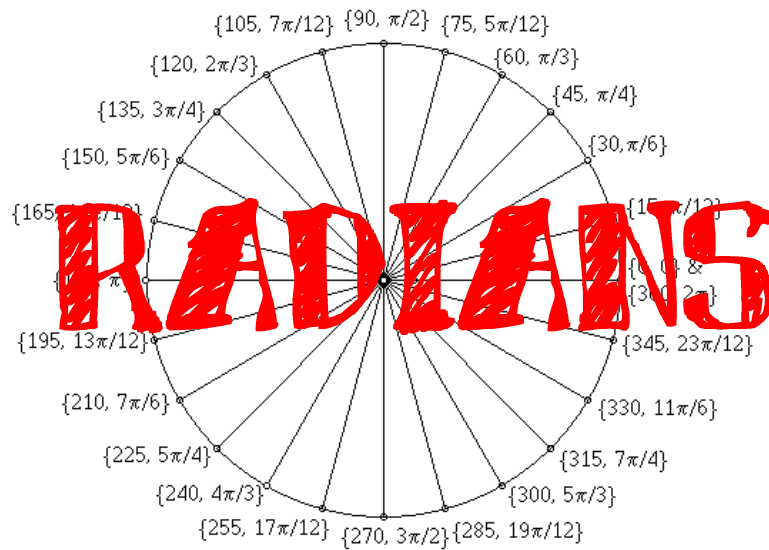
do now: I used to live in LA. I now live in NYC.
The driving distance, according to google maps,
is **2776 miles**.



do now: How many feet is this?

2776 miles

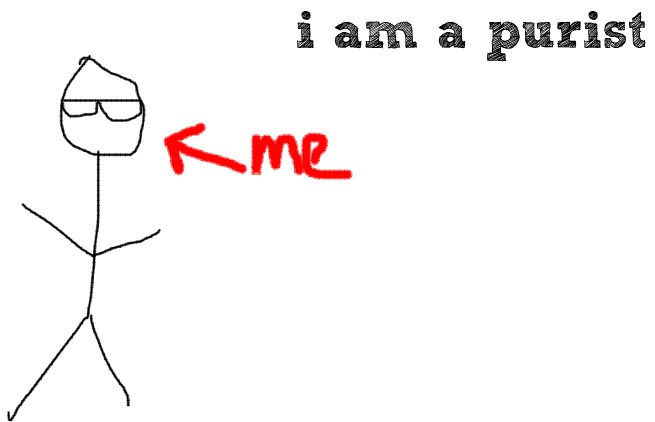


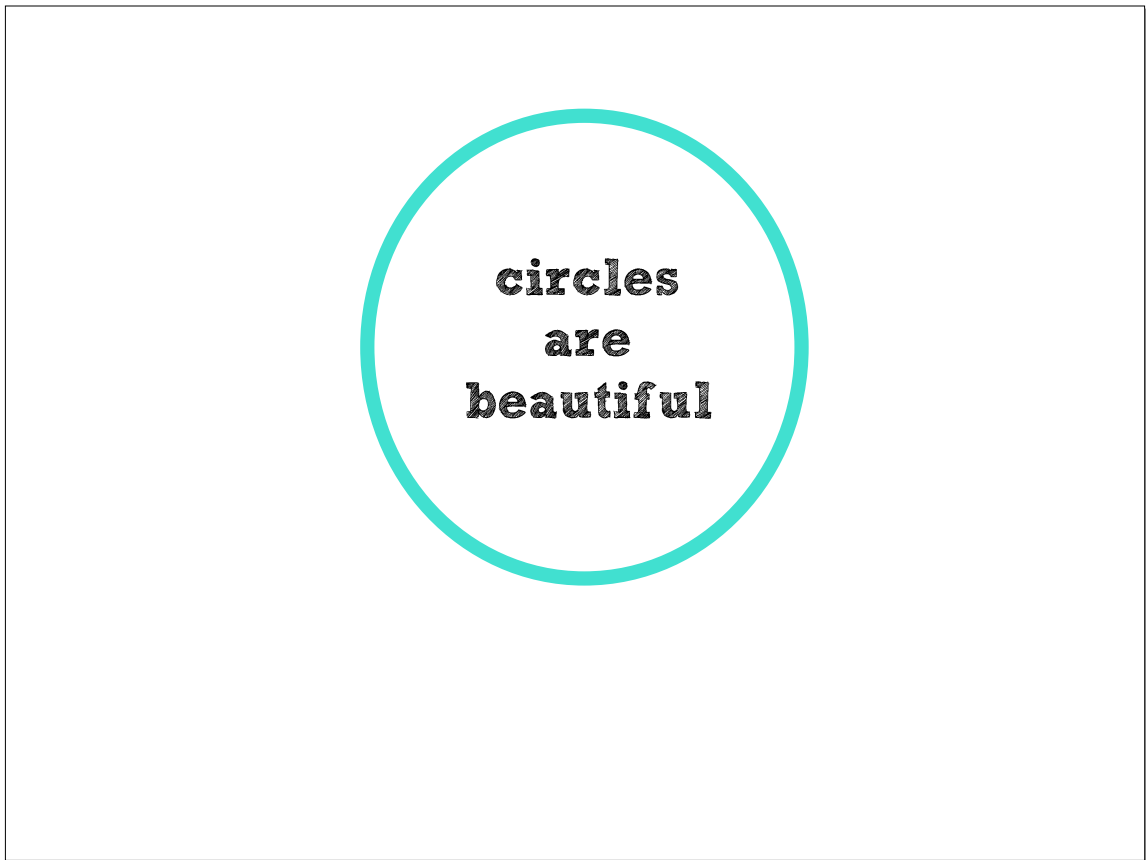
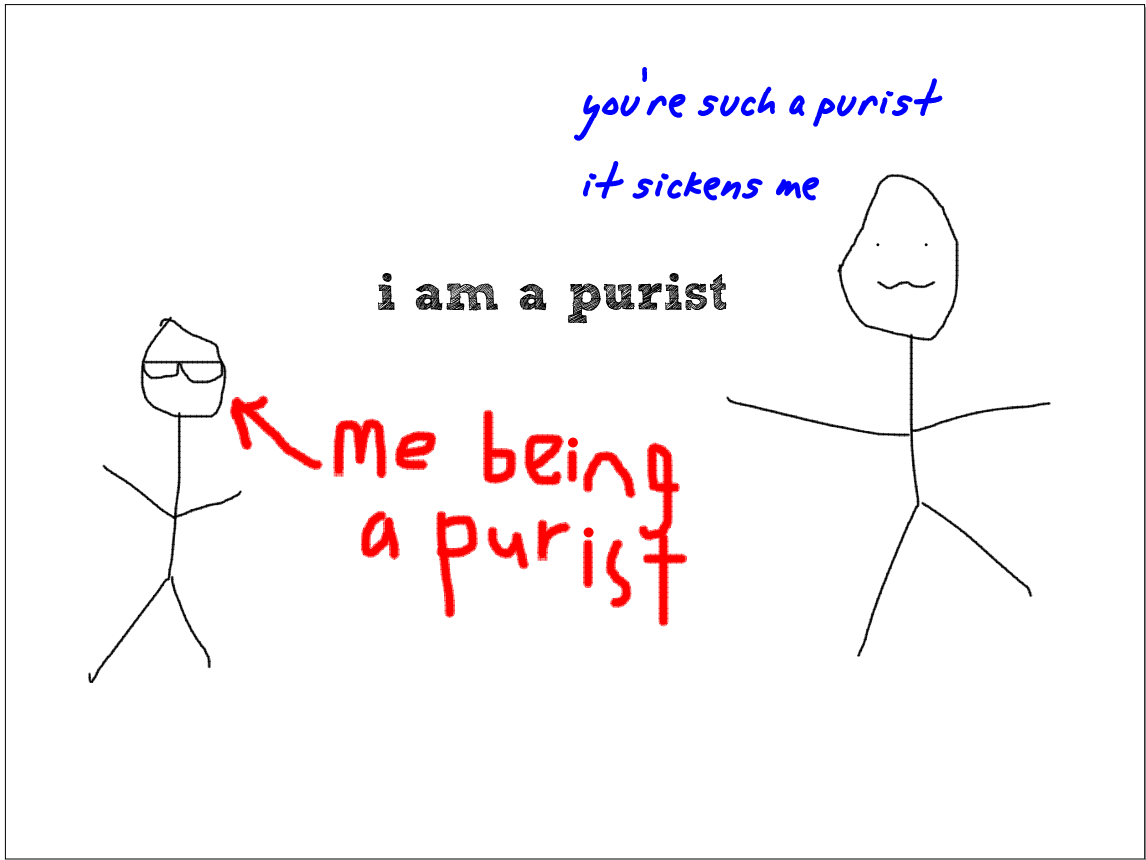


**a mathematicians cry
for radians over degrees**

(requires silence)

i am a purist





**360 degrees
in a circle?**

WHY?




why would someone
hate circles so much
that they would
say "360 degrees
in a circle"?


why would someone
hate circles so much
that they would
say "360 degrees
in a circle"?

circle
tears





**might as well
give a circle
 $215401.1553\sqrt{2}$ ¹
degrees**

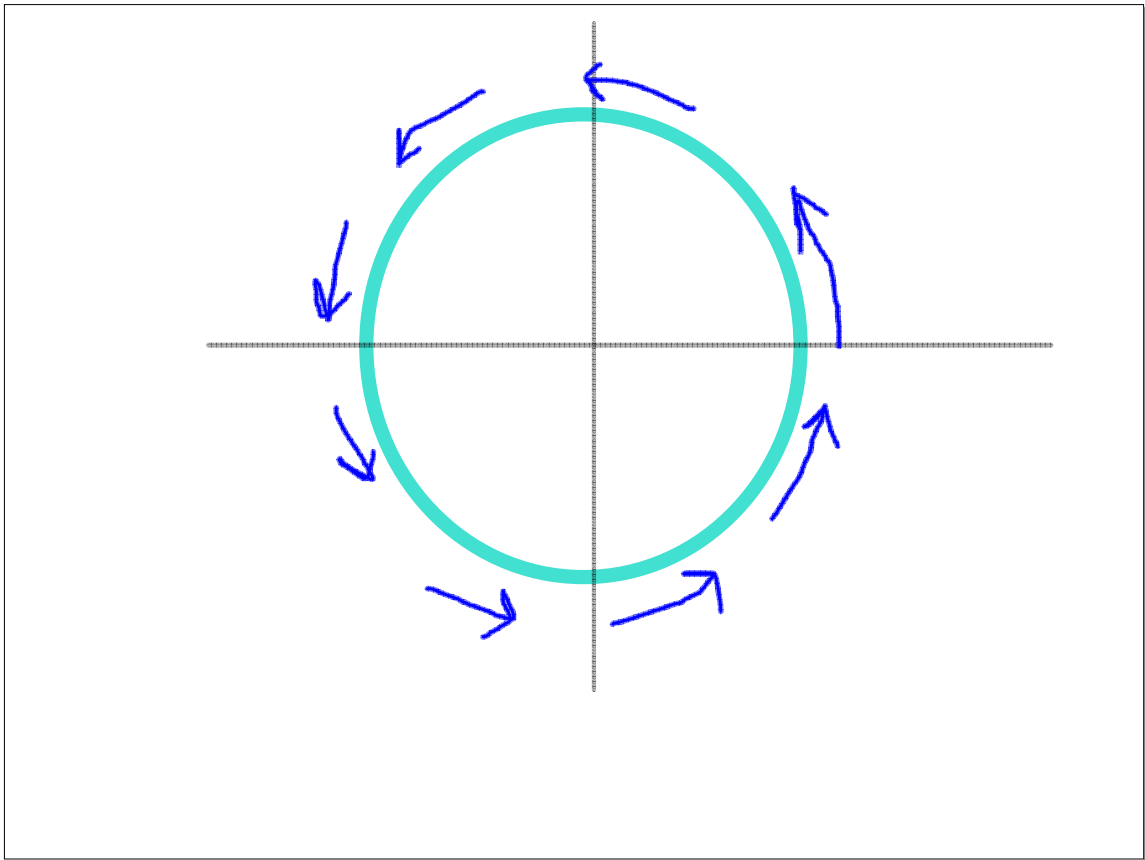


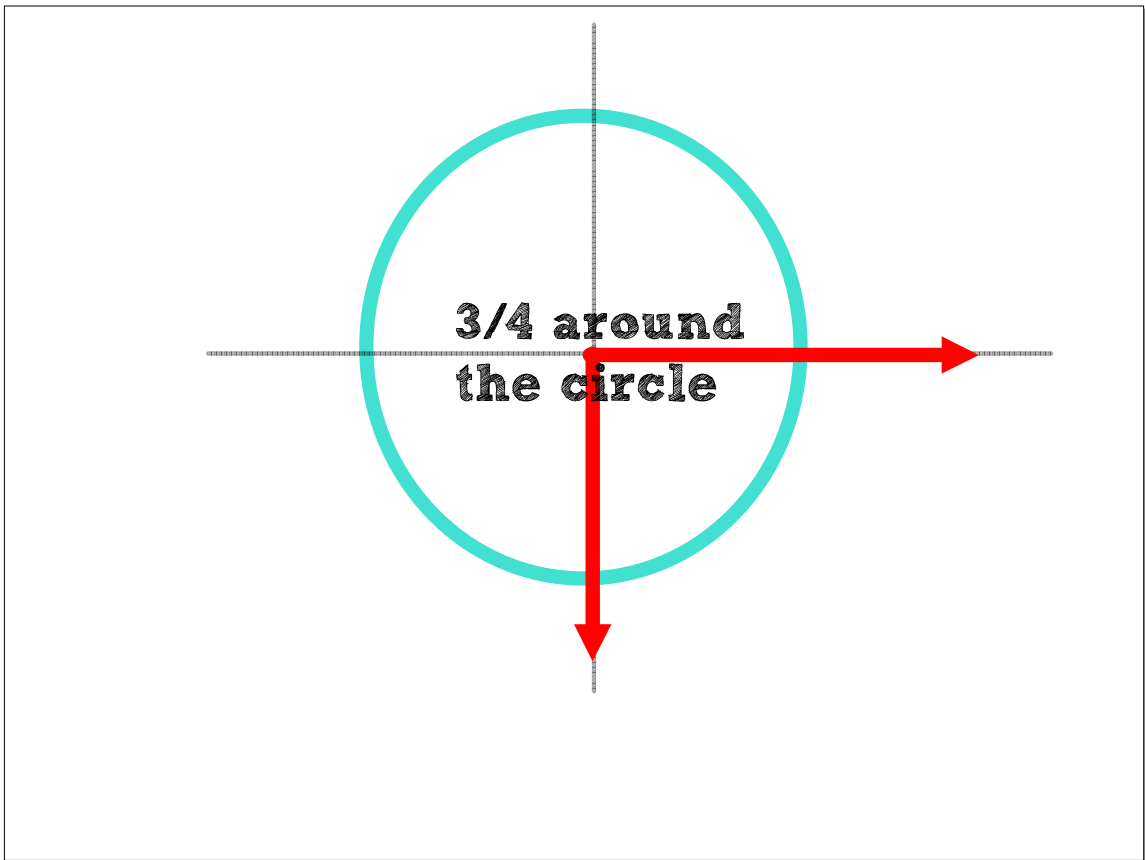
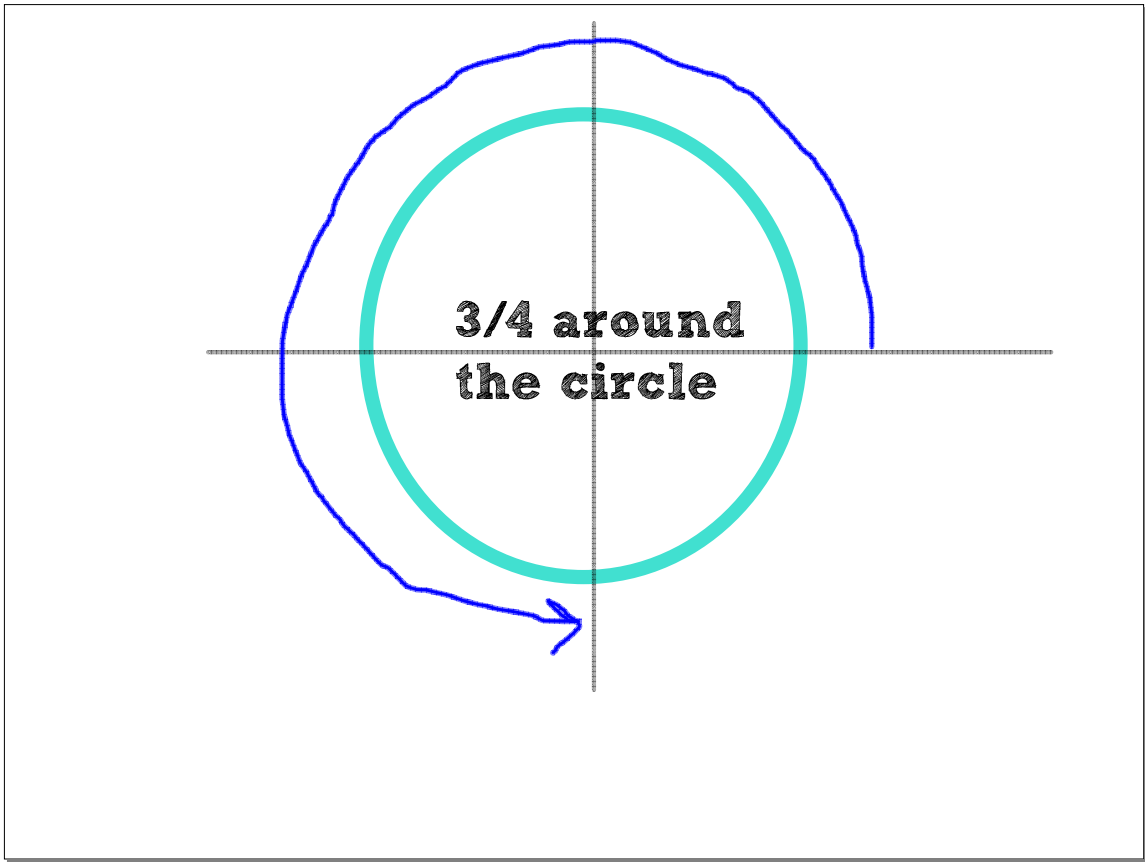
**it's just as random
as 360^{*}**

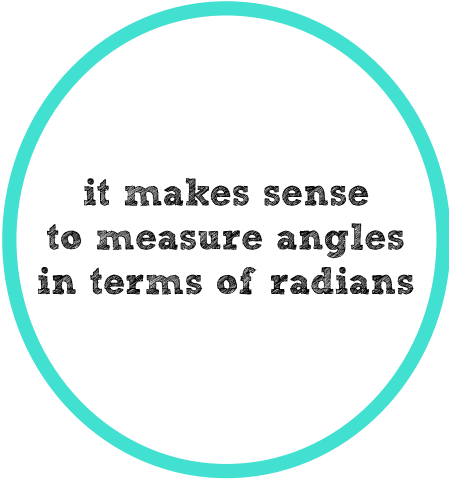
*okay, so actually 360 isn't totally random. it came from the Babylonians. (Look it up). Still, I like to think we've come a long way since then.

but wouldn't a
more **NATURAL**
and **BEAUTIFUL**
number for a circle
be 2π ?

the most beautiful
simple circle
has 2π built right
into it







**it makes sense
to measure angles
in terms of radians**



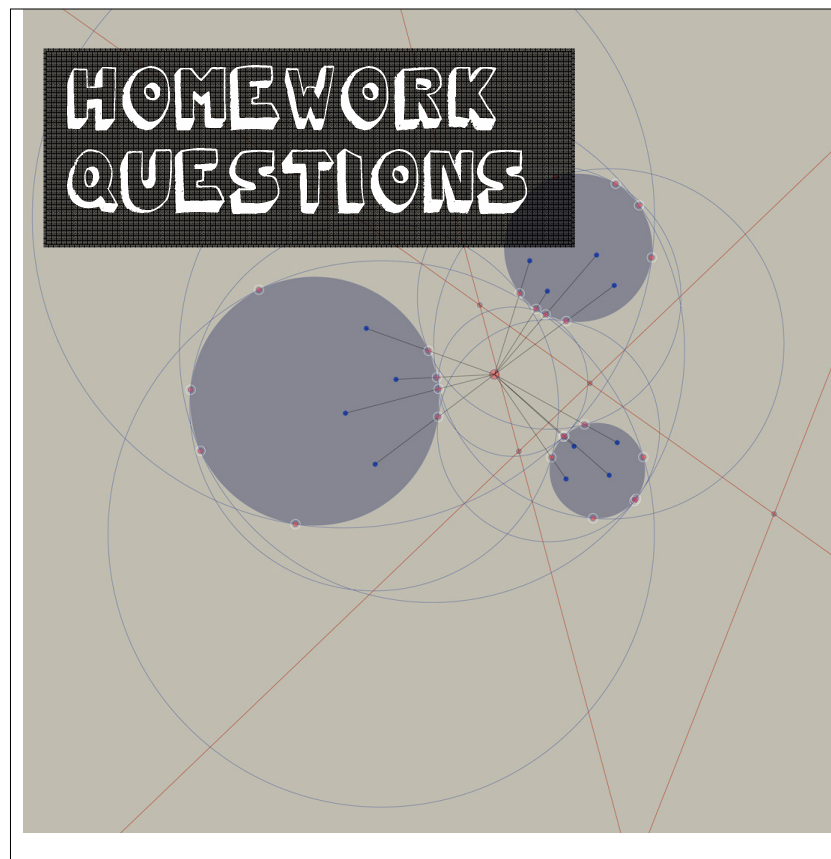
**THE CIRCLE
DEMANDS IT**

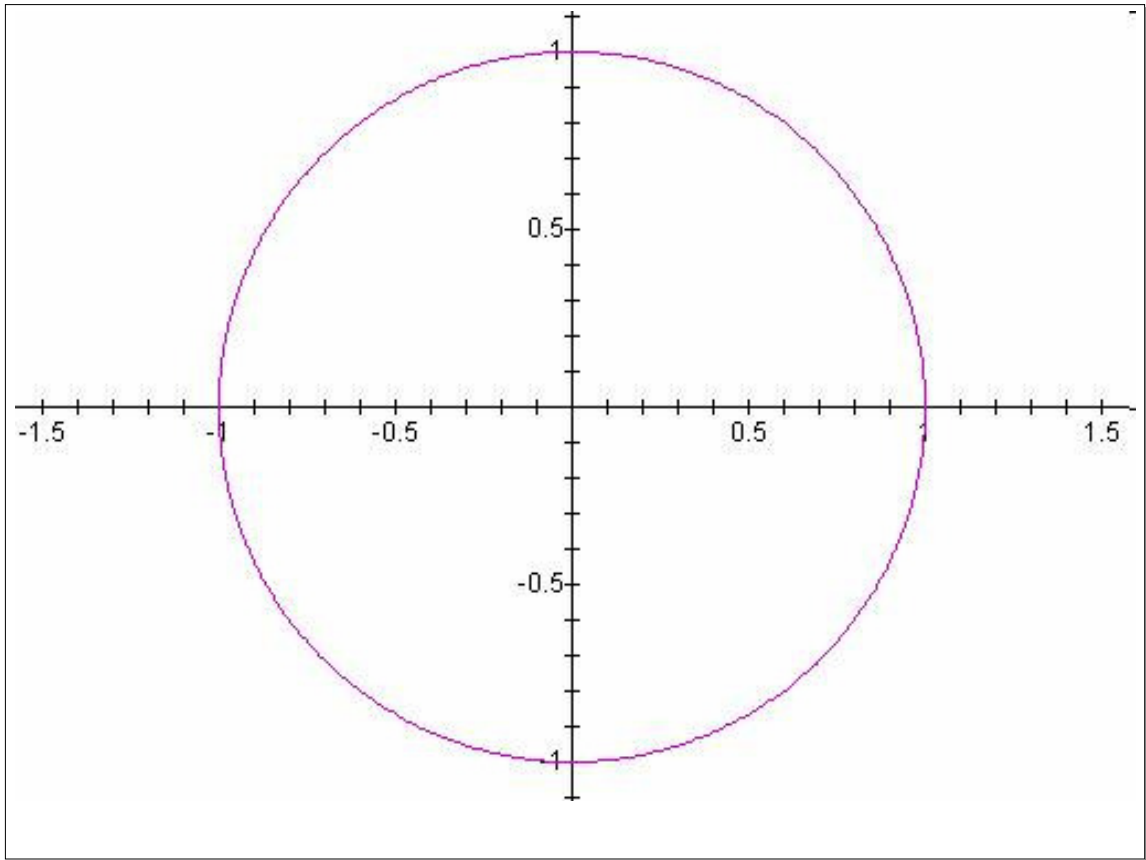


NOTATION ALERT!

degrees has a symbol °
radians has **no** symbol

it is used **so commonly** that an angle measure is **assumed to be in radians** unless you are told otherwise (like $\log(x)$ actually being $\log_{10}(x)$)





**HOW TO CONVERT BACK AND
FORTH BETWEEN DEGREES
AND RADIANS**

IN ONE EASY STEP

(remember the "do now" when doing this)

convert 53° into radians

convert $\frac{7\pi}{6}$ into degrees

(remember the "do now" when doing this)

convert -253° into radians

convert $\frac{5\pi}{4}$ into degrees

**WORK ON
HOMEWORK**