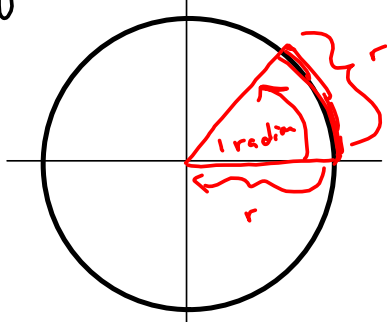


College Trigonometry

https://harryzaims.com/public_html/

1.1 - What is a radian? Radians and their relationship to arc length.

1 radian is the angle corresponding to an arc length equal to the radius



$S = 2\pi r = \text{circumference}$
 arc length, in general
 $S = r\theta$, when θ is given
 in radians.

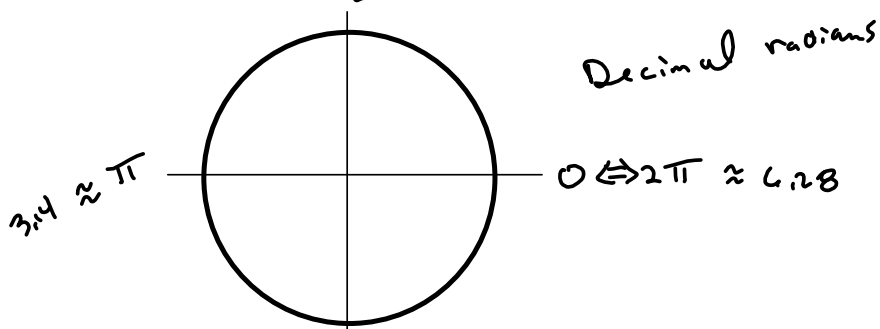
$$2\pi \text{ radians} = 360^\circ$$

$$\frac{2\pi}{360^\circ} = \frac{\pi \text{ radians}}{180 \text{ degrees}} \text{ is how to convert from degrees}$$

to radians.

$$\longrightarrow \frac{180^\circ}{\pi} \text{ to convert from radians to degrees.}$$

$$\frac{\pi}{2} \approx 1.57$$



$$0 \Leftrightarrow 2\pi \approx 6.28$$

$$\frac{3.14}{1.57} = 4.71$$

$$0^\circ = 0$$

$$30^\circ = \frac{\pi}{6}$$

$$45^\circ = \frac{\pi}{4}$$

$$60^\circ = \frac{\pi}{3}$$

$$90^\circ = \frac{\pi}{2}$$

$$\frac{3\pi}{2} \approx 4.71$$

Highlights:

Grading

E-mail Settings: 5%

Attendance: 5%

WebAssign Homework: 20%

Written Homework: 20% (One assignment per week)

WebAssign Chapter Quizzes: 15%

Written Midterm and Final Tests: 35% (These are in-person affairs. You will need to come to HORIZON HALL 107 on one of the scheduled days, of which there will be 2 open days available for the Midterm and 2 open days for the Final.)