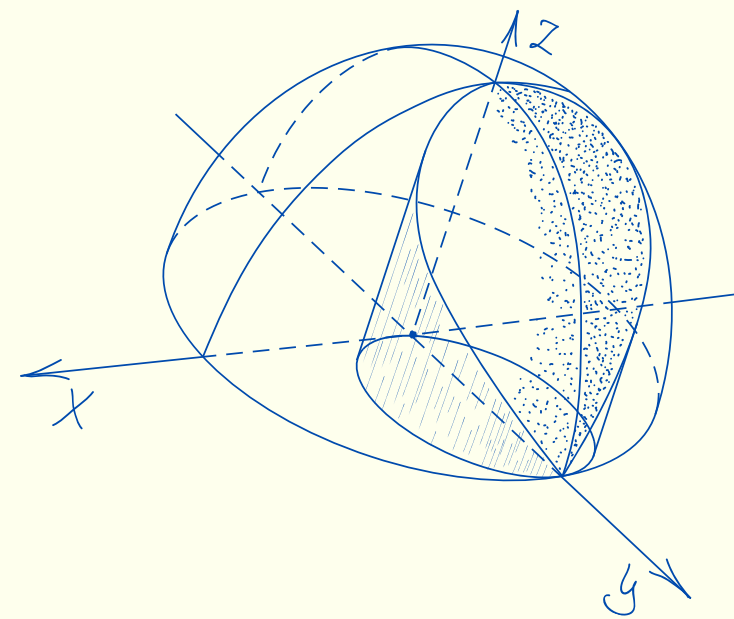
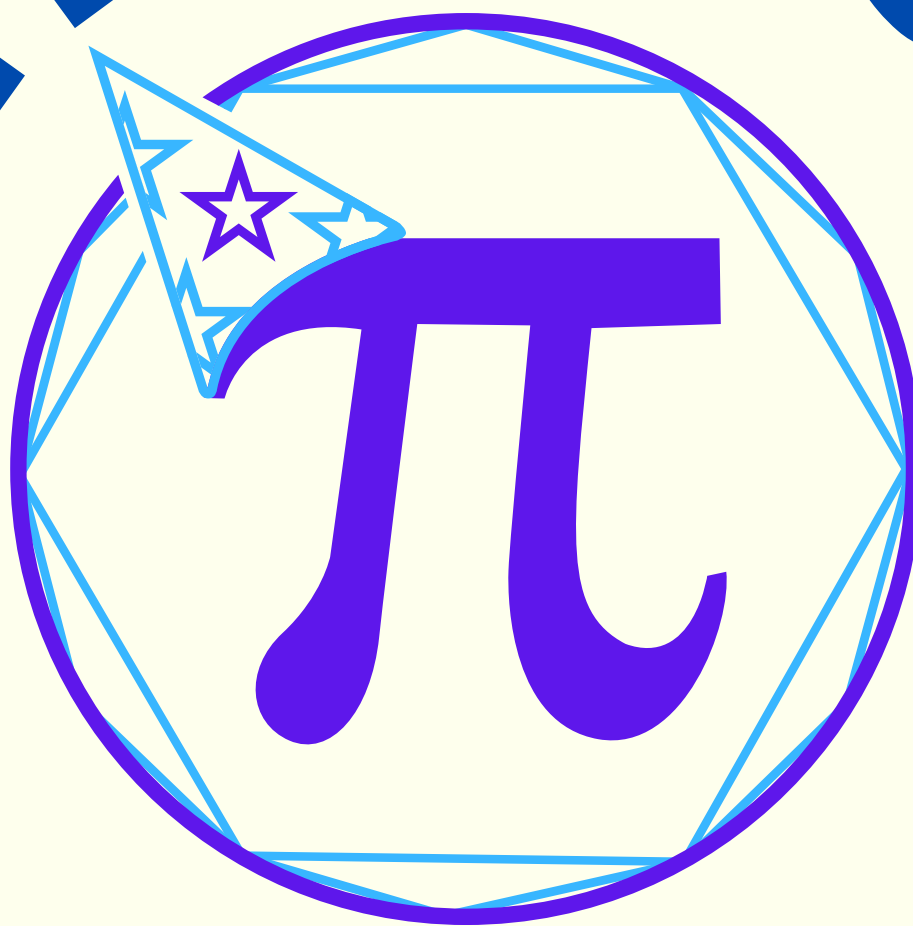
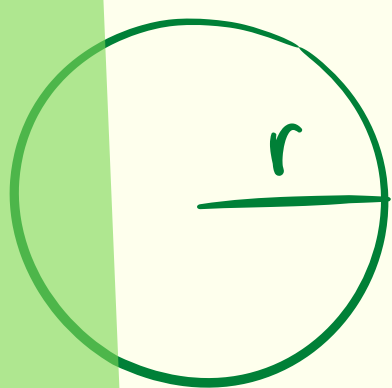


# Fun Facts About



π is the 16th letter of the Greek Alphabet.

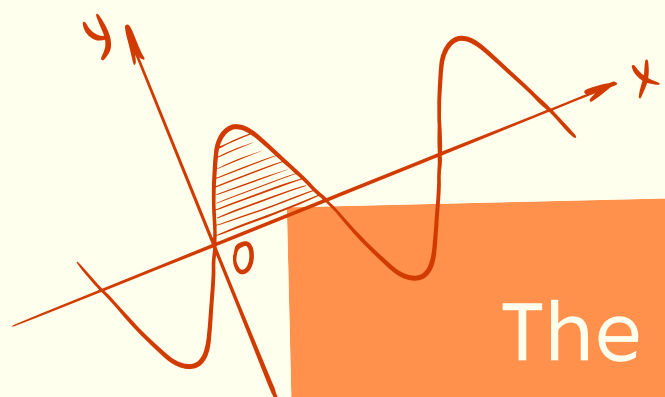
In Euclidian Geometry, all circles have the same **Circumference to Diameter ratio:** "π"



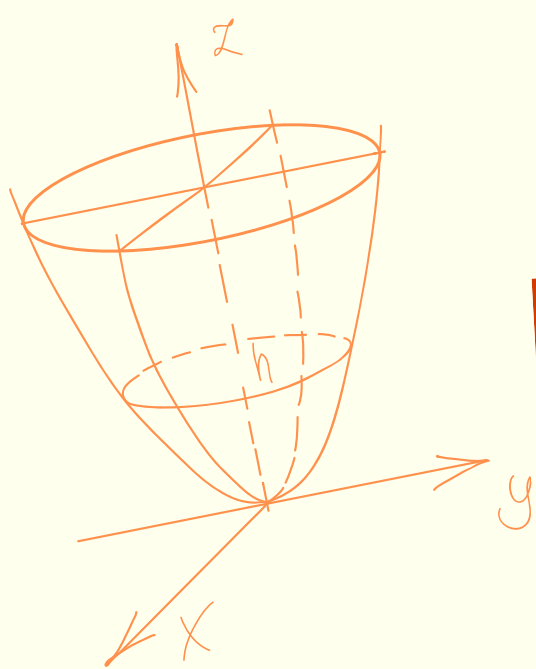
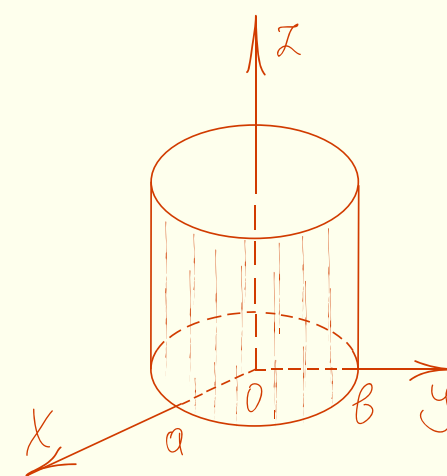
$$C = 2\pi r$$



π is an **irrational number**; It cannot be written as the ratio of two integers and it has an infinite number of digits in its decimal representation.



The first 100 digits of pi are 3.1415926535 8979323846  
2643383279 5028841971 6939937510 5820974944  
5923078164 0628620899 8628034825 3421170679



Pi Day is also celebrated as the **International Day of Math.**



One of the ancient π calculations can be seen on the **Rhind Papyrus** (~ 1550 BCE);  
"Cut off 1/9 of a diameter and construct a square upon the remainder; this has the same area as the circle"

Formula for computing the **n-th digit** of π

$$\sum_{n=0}^{\infty} \left( \frac{4}{8n+1} - \frac{2}{8n+4} - \frac{1}{8n+5} - \frac{1}{8n+6} \right) \left( \frac{1}{16} \right)^n$$

(in binary or base 16) without having to calculate all of the previous digits!

