

# A NEW PROPOSED ELEMENTARY PROOF OF THE PI THAT 7 IS PI EXACT VALUE

Ekta Singh,

Director, NYAYSANGAT FOUNDATION.

## ABSTRACT

*The number Pi is a mathematical constant commonly approximated as 3.14159.*

*This paper is important because without a computer this can be sort of difficult to calculate very far to calculate Pi value. Computers are failed because of wrong commands. It is so simple idea through the Limits is used to know the behaviors of function. A calculus is solving the Pi value by the principles of Derivatives.*

*The number Pi is a mathematical constant, the ratio of a circle's circumference to its diameter.*

*Although most people think that Pi is relegated to just geometry and trigonometry, the number pervades all of mathematics and the natural sciences, even statistics.*

*Keywords: Circle, Holy Trinity, Mathematics, Pi,*

## INTRODUCTION

“Pi” is the 16<sup>th</sup> letter of Greek.

**Definition - : Pi is an irrational number that's crucial to many mathematical formulas. Pi began being symbolized by the Pi symbol ( $\pi$ ) in the 1706 by the British mathematician William Jones. Jones used 3.14159 as the calculation of Pi.**

Despite all of the mathematical rigor of the modern era, Pi remains a mystery, a constant that in a way is in a way is in a way is constant.

Our world contains mainly round and near round objects, finding the exact value of Pi ( $\pi$ ) helps us build, manufacture and work with them more accurately.

“Pi ( $\pi$ )” is the ratio of circle's circumference to its diameter.

$$C/D = (\pi)$$

$$C/2r = (\pi)$$

$$C = 2 (\pi) r$$

We can calculate Pi by Circumference of circle.

Concept Pi =  $22/7$

But Pi ( $\pi$ ) is a non- repeating

Non – terminating

Actually Pi is an irrational number.

$22/7$  is an approximate value of Pi, it does not equal to Pi, you cannot find the exact area of a circle using  $Pi = 22/7$

Generally, we see,  $22/7 = 3.14285$

But  $Pi = 3.14159$

Actually Pi is irrational no. it cannot be repeated

In school we read, in case we divide  $22/7$  we will find  $22/7 = 3.14285714286$  and so on.

But actual value of Pi is =  $3.14159265358479323846283279502884\dots$ and so on.

Pi is an irrational number, which means that is a real number that cannot be expressed by simple fractions. That's because pi is what mathematicians call an "infinite decimal" – after the decimal point, the digits go on forever and ever.

When starting off in math, students are introduced to Pi ( $\pi$ ) as a value of 3.14 or 3.14159. Though it is an irrational number, some use rational expressions to estimate Pi ( $\pi$ ), like  $22/7$  or  $333/106$ . These rational expressions are only accurate to a couple of decimal places.

While there is no exact value of Pi ( $\pi$ ), many mathematicians and math fans are interested in calculating Pi ( $\pi$ ) to as many digits as possible. The Guinness World Record for reciting the most digits of Pi ( $\pi$ ) belongs to Rajveer Meena of India, who recited Pi ( $\pi$ ) to 70,000 decimal places. Meanwhile, some computer programmers have calculated the value of Pi ( $\pi$ ) to more than 22 trillion digits.

The secret of Pi ( $\pi$ ) it is defined as the ratio of the circumference of a circle to its diameter, Pi ( $\pi$ ), or in symbol form, Pi ( $\pi$ ), seems a simple enough concept. But it turns out to be an "irrational number", meaning its exact value was inherently unknowable.

But with sound efforts of "NYAYSANGAT FOUNDATION" it is now knowable

The early history of mathematics covers many approximations of the value of Pi ( $\pi$ ). The simplest approximation for Pi ( $\pi$ ) is just 3. Yes, we all know that's incorrect, but it can at least get you started if you want to do something with circles.

In the past many math books listed Pi ( $\pi$ ) as  $22/7$ . Again this is just as approximation. The most common method would be contrast a many – sided polygon and use this to calculate the perimeter and diameter as an estimate for Pi ( $\pi$ ). Other cultures found ways to write Pi ( $\pi$ ) as an infinite series.....but without a computer this can be sort of difficult to calculate very far.

You can calculate a bunch of digits of Pi ( $\pi$ ) by method of Calculus. It will be simplest to understand by Derivatives.

**Proof:**

**Derivative is slightly subtle has three solution**

**Step 1- Choose some point as 2<sup>nd</sup> point. Only criteria it is extremely close to point where you need to find speed.**

**For Example – Speed, choose 3.14**

**Step 2 – Find Average speed over this small interval**

**Change in Distance/Time = D/T**

$$3.14/0.1$$

**Step 3 – Choose interval to be extremely close to 0 but not 0**

Created imaginary number called as infinity, < Real Numbers but > 0

Generally,

1. When we want to reduce information we have to use derivative.
2. When we want to increase information we have to use integration.

Derivative with respect to t = D/Dt

$$3.14/3.14*0.1$$

Result here t will be 0.1

And now the question what is the relationship between distance and time

Relationship will be here  $D = 1/2 gt^2$

We can use “POWER OF GENERALIZATION” to find the answer. And

By the way of physics

The title equation,  $s = 1/2 gt^2$ , gives the distance  $s$  fallen by an object in a time  $t$ , assuming the object starts at rest and that air resistance is negligible;  $g$  is the acceleration of gravity, which is about  $9.8 \text{ m/s}^2$  on the surface of the Earth.

Solution

$$1/2xgt^2$$

Here  $g = 9.8 \text{ m/s}^2$

$$t = 0.1 \text{ (Derivative with respect to } t = D/Dt)$$

$$s = 1/2xgt^2$$

$$2s = gt^2$$

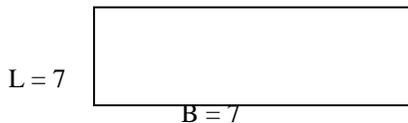
$$2s/t^2 = g$$

$$= 49$$

Then we will find out the answer 49

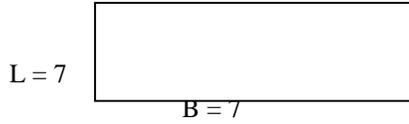
Means  $(7)^2$

Area of a Limit is LxB



We prove that 7 is Pi ( $\pi$ ) exact value which is now knowable.

As we know : Area of a Limit is  $L \times B$



Therefore, answer will be 7.

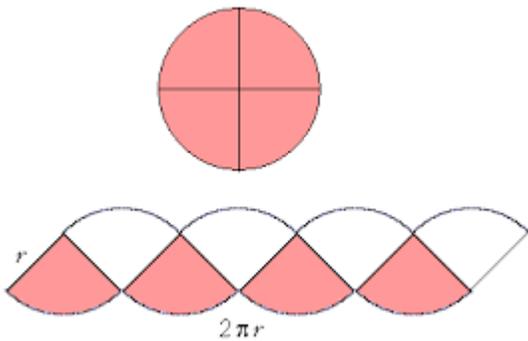
**We know,**

**Area of Circle =  $\pi r^2$**

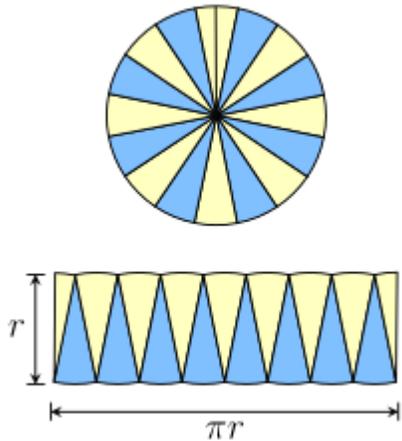
Therefore, we can Proof of Area of circle by below steps -

Step 1 - Chop area into 4 quarters and then rearrange the figure.

Step 2 – Repeat with 8 slices and then rearrange figure.

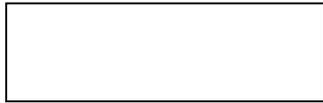


Step 3 – Repeat with more slices and takes to infinity, break infinite pieces and break and rearrange. Practically not possible but we can imagine.

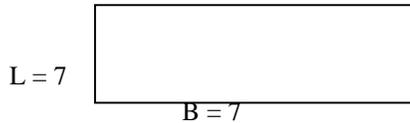


When we take infinity concept, we will find the shape of rectangle. Now we can easily proof the area of circle.

: Area of a Limit is  $L \times B$



Area of a Limit is  $L \times B$



**By using the invariance principle, we find that ... 7 is Pi exact value which is now knowable.**

Conclusion – It took over four thousand years of constant searching to gain the understanding of Pi that humanity has today. It is very easy to calculate now. Even the “average person” can calculate the value of Pi by “What is the relationship between two entities?”

**REFERENCES –**

1. Lighthouse – You tube
2. Pi Wikipedia