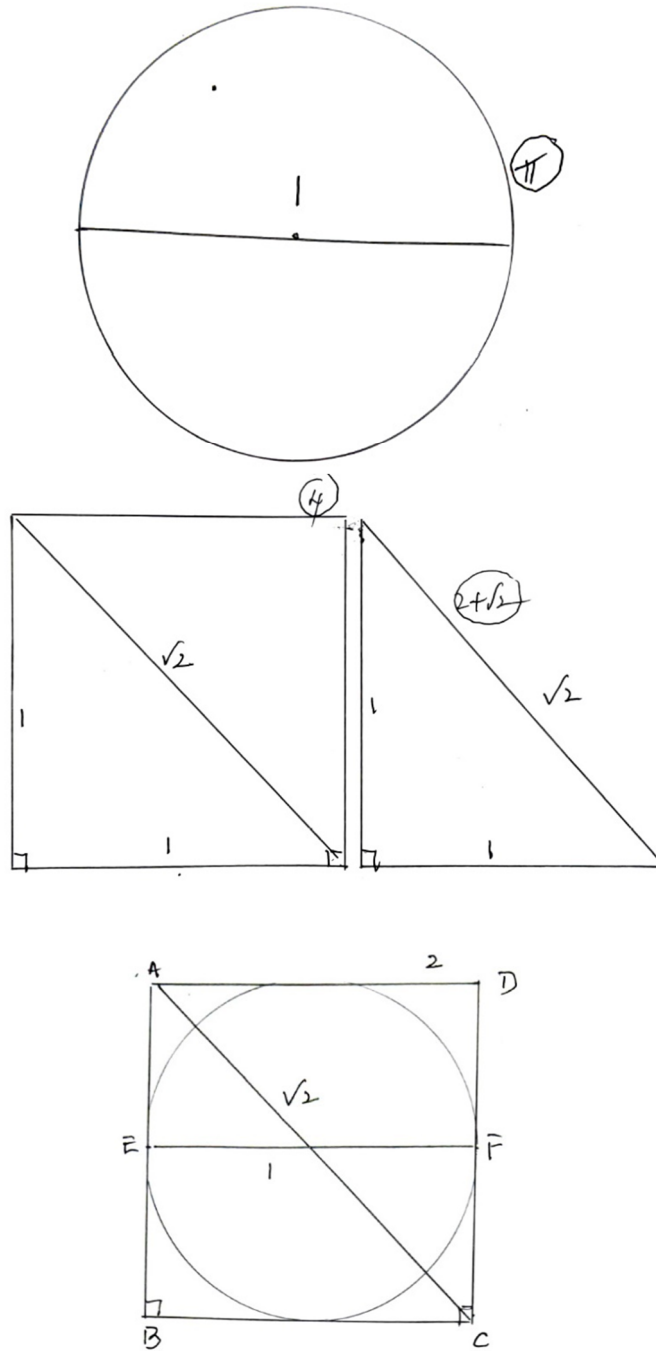


2534<sup>TH</sup> PAPER: CIRCLE, TRIANGLE & SQUARE ARE ONE AND THE SAME

1. Perimeter of square  $4 \times 1 = 4$
2. Perimeter of triangle  $ABC = 1 + 1 + \sqrt{2} = 2 + \sqrt{2}$
3. Circle Diameter = 1, Perimeter (Circumference) =  $\pi d$   
 $= \pi \times 1 = \pi$

**Statement**

Let, the sum of circumference of circle, perimeter of square, and one fourth of the perimeter of triangle is equal to 8.

$$\pi d = ? = \pi \times 1 = \pi = ?$$

$$\text{Square} = 4$$

$$\frac{1}{4} \text{ Triangle} = \frac{2 + \sqrt{2}}{4}$$

Perimeter of square +  $\frac{1}{4}$  of Perimeter of triangle + circumference = 8

$$4 + \frac{2 + \sqrt{2}}{4} + \pi = 8$$

$$\frac{16 + 2 + \sqrt{2} + 4\pi}{4} = 8$$

$$\frac{18 + \sqrt{2} + 4\pi}{4} = 8$$

$$18 + \sqrt{2} + 4\pi = 32$$

$$4\pi = 32 - 18 - \sqrt{2}$$

$$4\pi = 14 - \sqrt{2}$$

$$\pi = \frac{14 - \sqrt{2}}{4} = 3.146446609.....$$

In the form of a fraction (to avoid use of pocket calculator)  $\pi$  can be

$$\frac{5135}{1632} = 3.146446..... \text{ (up to 6 decimals)}$$

**Discussion:**

The circle, triangle and square co-exist maintaining a definite proportion surprisingly, circle has been separated from the other two and lifted to the top of the Mount Everest by the huge crane of INFINITE SERIES calling it a transcendental entity.

Until 1882 we could not understand the  $\pi$  number. C.L.F. Lindemann has called it  $\pi$  a transcendental number based on Euler's Identity.

$$e^{i\pi} + 1 = 0$$

Earlier to him C. Hermite called 'e' a transcendental number.

Lindemann was inspired (literature says) and chosen Euler's Identity.

This Identity accepts  $\pi$  RADIANS =  $180^\circ$  only and rejects 3.14

Are we prepared to accept

$180^0 = 3.14$ , equal or identical or same?

Do we get zero when we substitute 3.14 in the place of  $\pi$

$$e^{i\pi} + 1 = 0$$

$$\text{As } e^{i \times 3.14} + 1 = ?$$

It means that  $\pi$  constant 3.14 has no place for itself in the Euler's Identity.

Leonard Euler (1707-1783) knew the above truth and hence he could not use it for himself.

After 99 years of the death of Euler, Lindemann proposed the concept, no, no thrustured on the world the concept of "Transcendental number".

It is a mathematical illusion just like 2 Astronomical illusions

They are 1. Sun rise and Sun set, 2. Moon Illusion

The moon appears larger at horizons (morning and evening) and appears smaller at zemith (over our head) in the noon.

The Sun is stationary but appears moving. "Rise" and "Set" are misnomers. (By the way, this author has geometrically explained this Moon Illusion of 11% difference and published a paper too, and is available in the internet).

### **A small question**

Why this number  $\frac{14-\sqrt{2}}{4}$  escaped from our view?

There are two reasons, and no body is responsible

One reason is

Archimedes has said  $\pi$  is less than  $3 + \frac{1}{7} = 3.142857....$

The 3<sup>rd</sup> decimal is 2 and accordingly (to him)  $\pi$  should be 3.141.

He is not to be questioned

Because,

In his days there was

no zero and

no decimal place number system from the ancient Indians

But he is right if we see in a different angle

Less than 1/7 means (denominator perhaps)

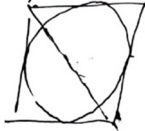
$$\frac{1}{4+2\sqrt{2}} = \frac{1}{6.82842712474} = 0.14644660.....$$

$$\frac{1}{7} \rightarrow \frac{1}{6.828.....}$$

### Second reasons is

Unfortunately  $\sqrt{2}$  number has been wrongly rejected from the circle.

Why the above view is a mistake?



We see in this figure diagonal and circle.

Diagonal has two terminals touching two corners of the square and is represented by  $\sqrt{2}$  of Hippasus of Metapontum.

Where as the circle touches the square at 4 points i.e. mid points of 4 sides of square. Whatever that applies to diagonal also applies to circle and it means  $\sqrt{2}$  also has a role to play in circle in finding circumference and area of circle.

This author saw the above reality in 1972 and searched and searched (when he was 26 years old then), next 26 years and found in 1998 the  $\sqrt{2}$  in  $\pi$ .

Next 27 years (1998-2025) have been used **to confirm** whether  $\frac{14-\sqrt{2}}{4}$  is right or wrong and wrote enough papers, 2534 running 37 volumes under the title

Pi OF THE CIRCLE and are available in

1. Sri Venkateswara University Library, Tirupati.

and

2. For the whole world in “ResearchGate Reddy  $\pi$ ”

I Thank you humbly for reading this simple PAPER of an old man of 80 years.

“..... a man has not been made to accept defeat. He can be completely destroyed but never defeated “**The Old Man and the Sea**” – Earnest Hemmingway.

**R. Sarva Jagannadha Reddy**  
4-Nov-2025