The Perimeter of Square
Chooses the True π Number

1. π of Archimedes $= \frac{22}{7}$

   $(\pi - 3) = \frac{22}{7} - 3 = \frac{1}{7} = 0.14285714285$

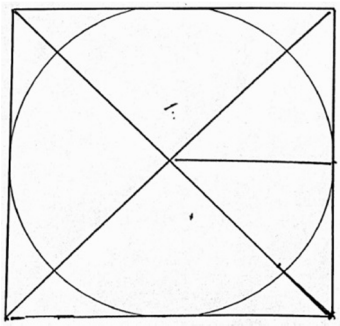
2. π value of research labs = 3.14159265358……..

   $(\pi - 3) = 0.14159265358.....$

3. Reddy $\pi = \frac{1}{4}(14 - \sqrt{2}) = 3.1464466094.....$

   $(\pi - 3) = \frac{14 - \sqrt{2}}{4} - 3 = \frac{2 - \sqrt{2}}{4} = 0.1464466094.....$

4. Let us draw a square, two diagonals and also inscribe a circle in the square.



5. **Square:** Side = 1, Diagonal = $\sqrt{2}$, Perimeter = 4
6. **Circle:** Diameter = 1, Radius = ½

   Circumference $\pi d = \pi \times 1 = \pi$
7. There are now two π values $-\frac{22}{7}$ of Archimedes used in schools and 3.14159265358…….. used in research labs.
8. A new π value $\frac{1}{4}(14 - \sqrt{2})$ was discovered in March 1998 by R.Sarva Jagannadha Reddy of India.
9. We say 3.14159265358……. is a transcendental number (C.L.F. Lindemann, 1882).
10. The Reddy π value is an Algebraic Number.
11. There are two unsolved problems and they are 1. Finding an EXACT π value and 2. SQUARING A CIRCLE.
12. The new π value has solved both the problems.

13. **Statement**

Let the sum of two diagonals of square and eight times of (π-3) of circle, is equal to, the perimeter of square (4).

$2\sqrt{2}+8(\pi-3)=4$

14. $2\sqrt{2}+(8\times 0.1428571428)=$ of Archimedes

$=3.97128426754.....\neq 4$

15. Research π value

$2\sqrt{2}+(8\times 0.14159265358)=3.9611683533\neq 4$

16. New π value $2\sqrt{2}+\left(8\times\frac{2-\sqrt{2}}{4}\right)=4$

17. **Result:** Perimeter of square = 4

$\frac{22}{7}$ says = 3.97128426754

World π says = 3.9611683533

New π says = 4.0

18. For more details on Reddy π.

"ResearchGate-Reddy π" & GOOGLE

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