ESTIMATION OF PI USING BUFFON'S NEEDLE EXPERIMENT

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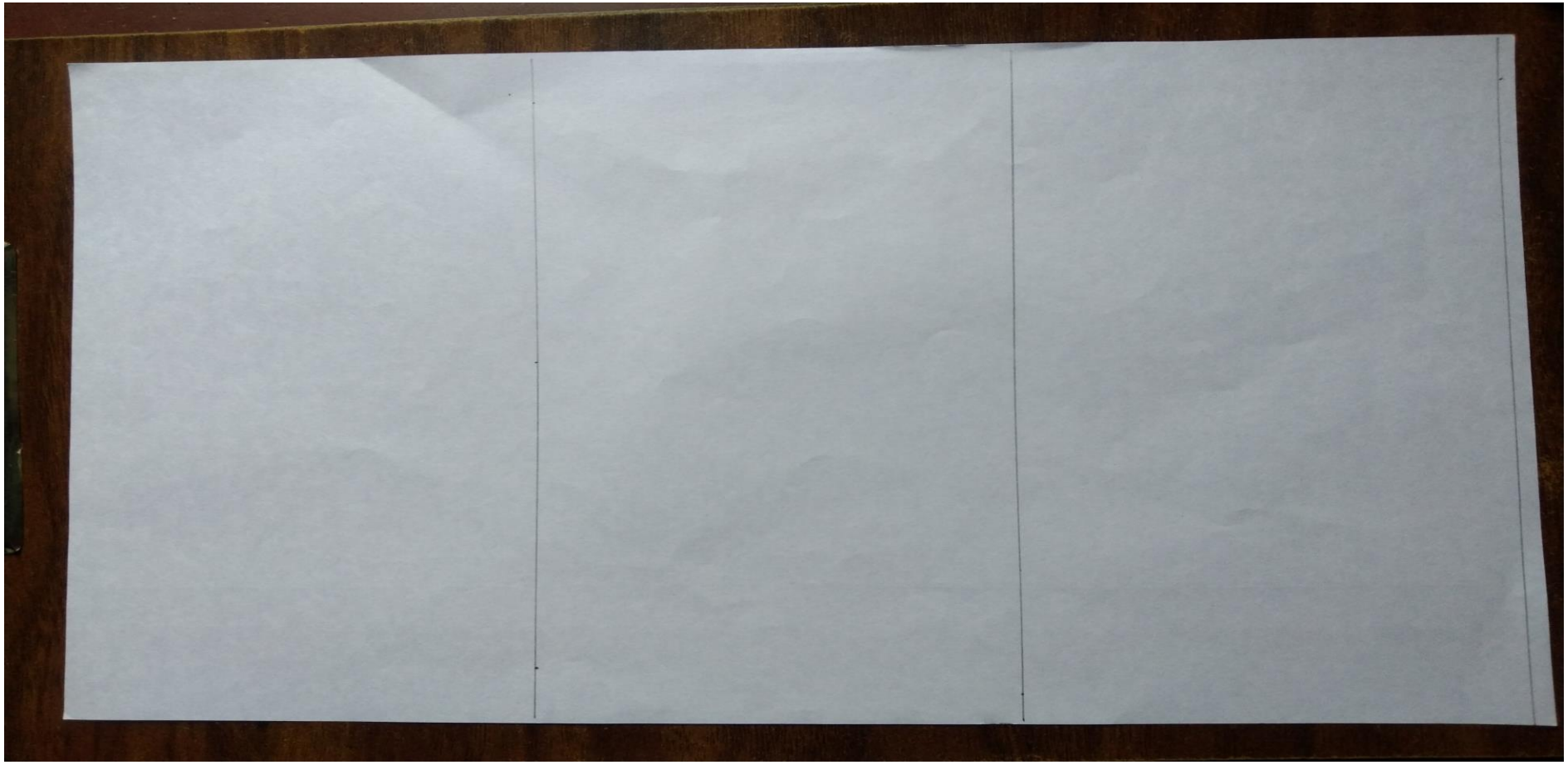
Experimental procedure:
Step1;

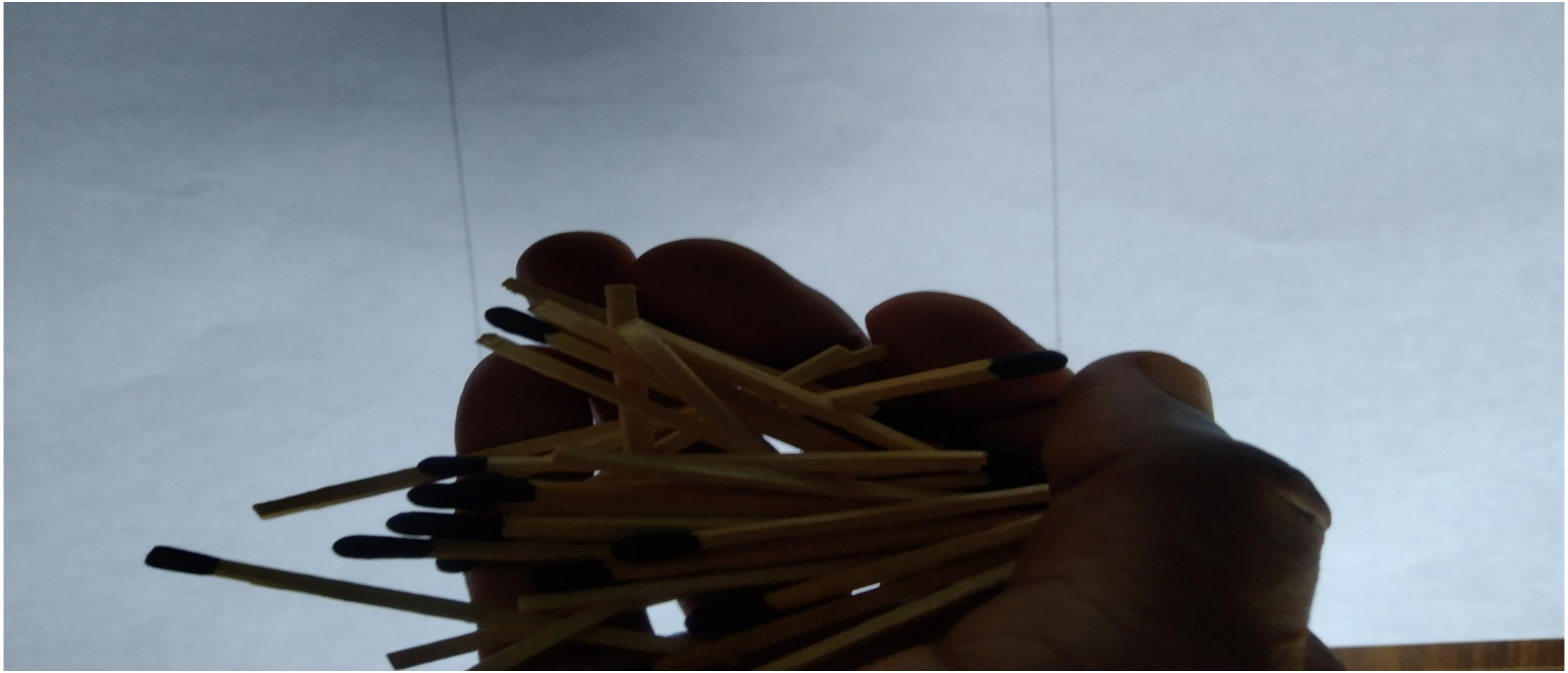
STEP2;

Step 3;



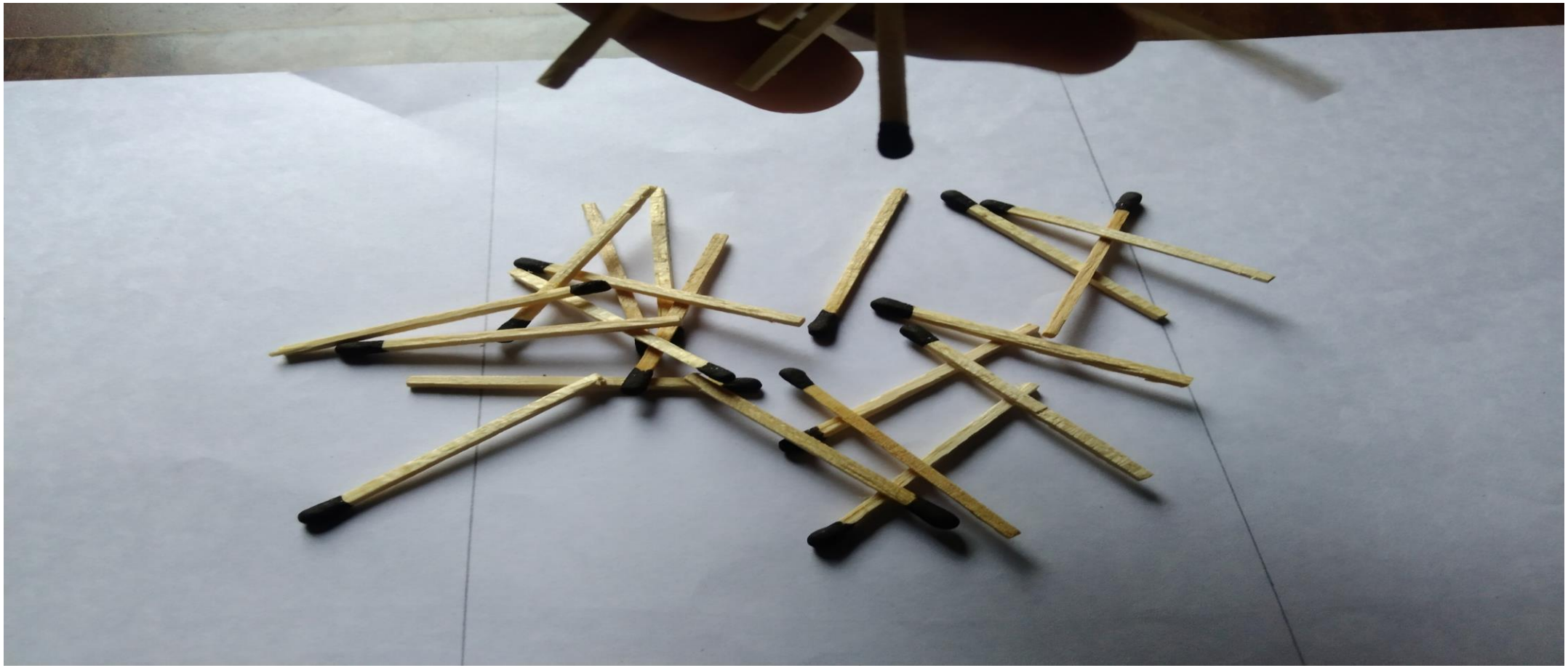
Step 4;

Step 5;

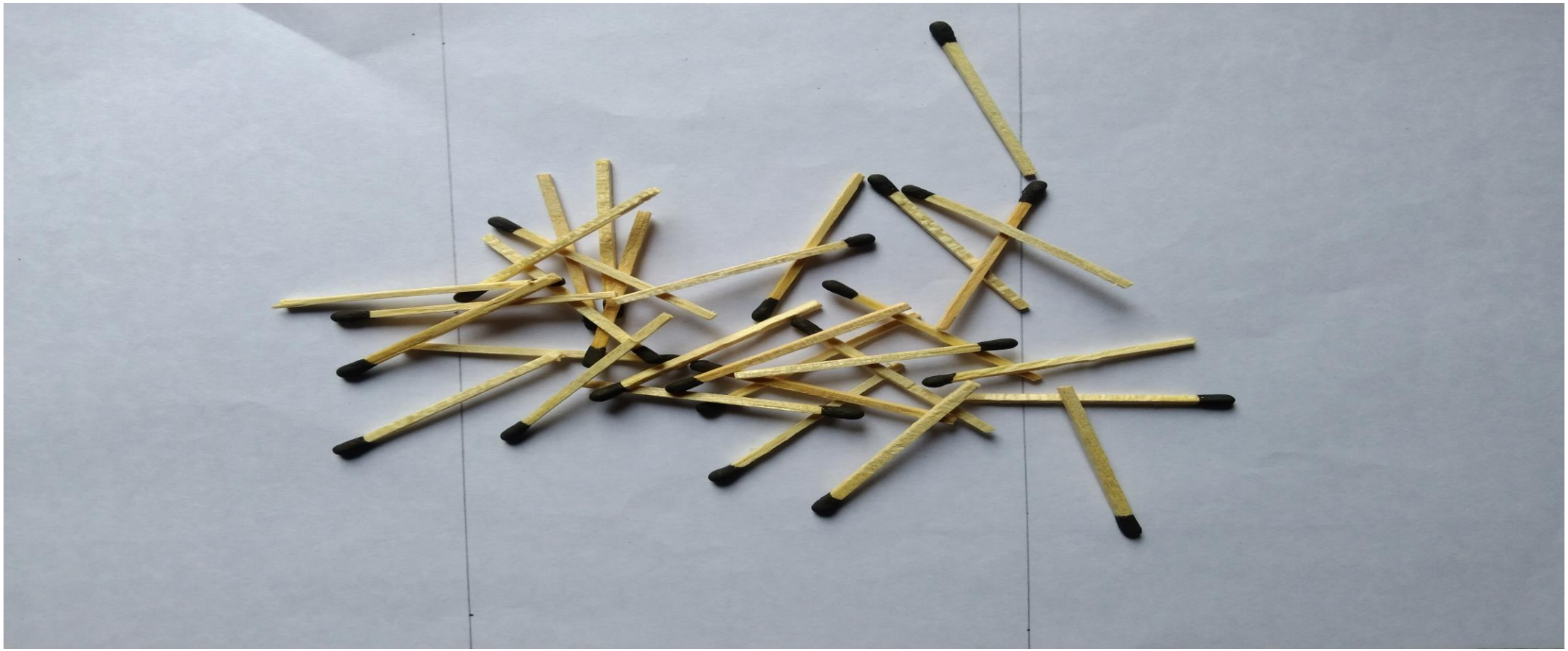


Step6;

Step7;



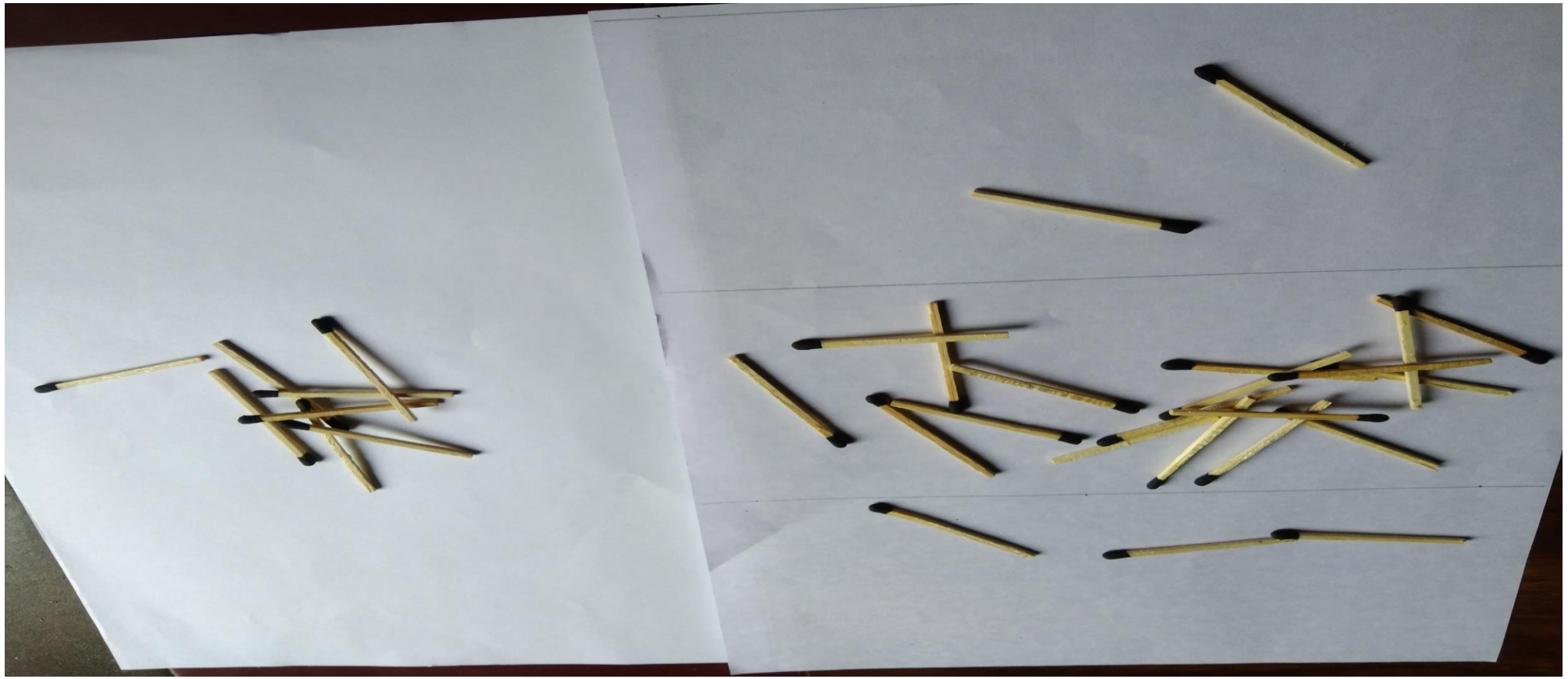
Step8;



Step 9;

Step10;

Step11;

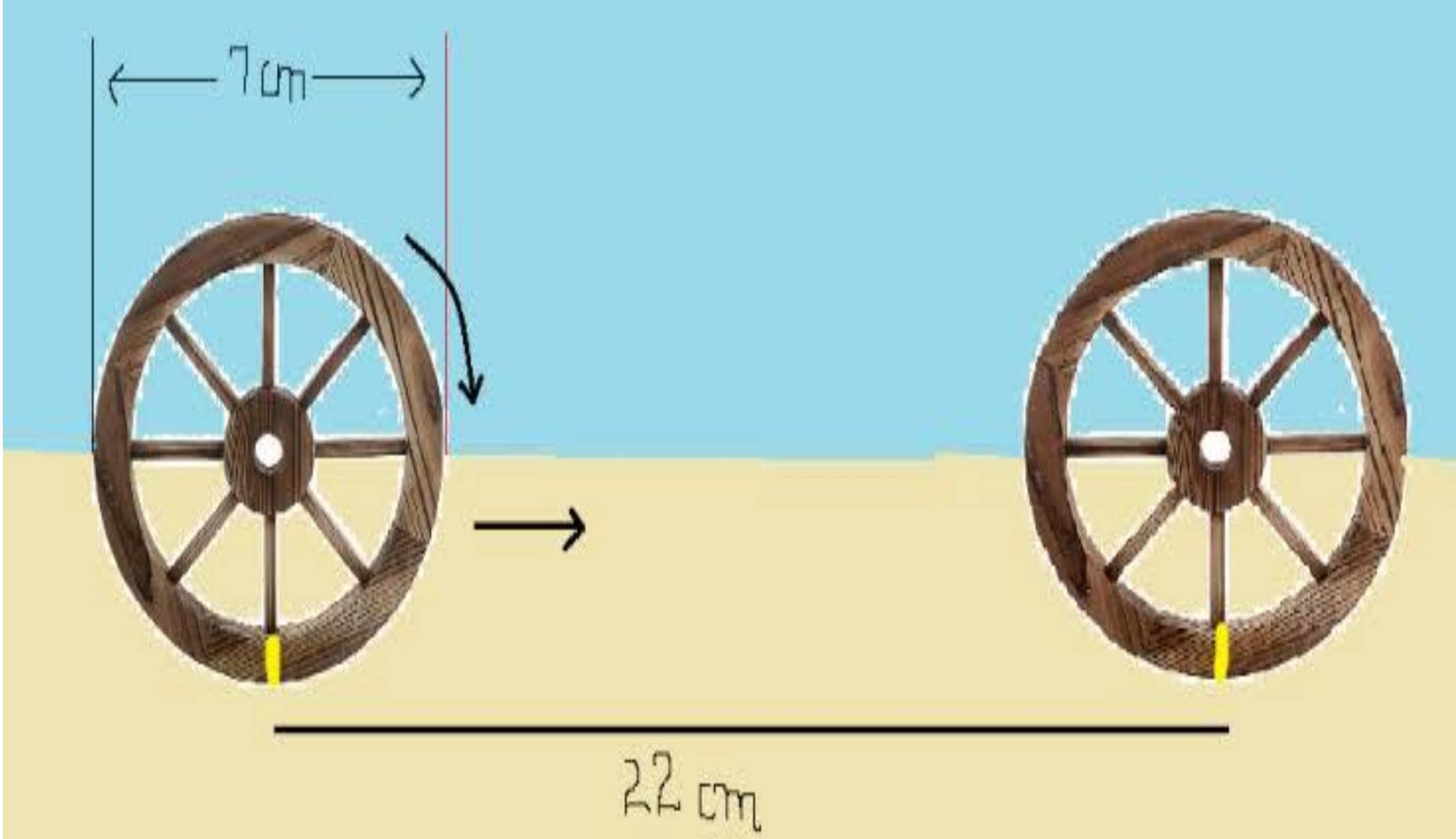


Final calculation based on observations:

- Pi= (total no.of needles crossed the parallel lines)/(total no. Of needles taken)
- The above eqn gives us the approximate value of pi .
- i.e, ~ 3.1415….,

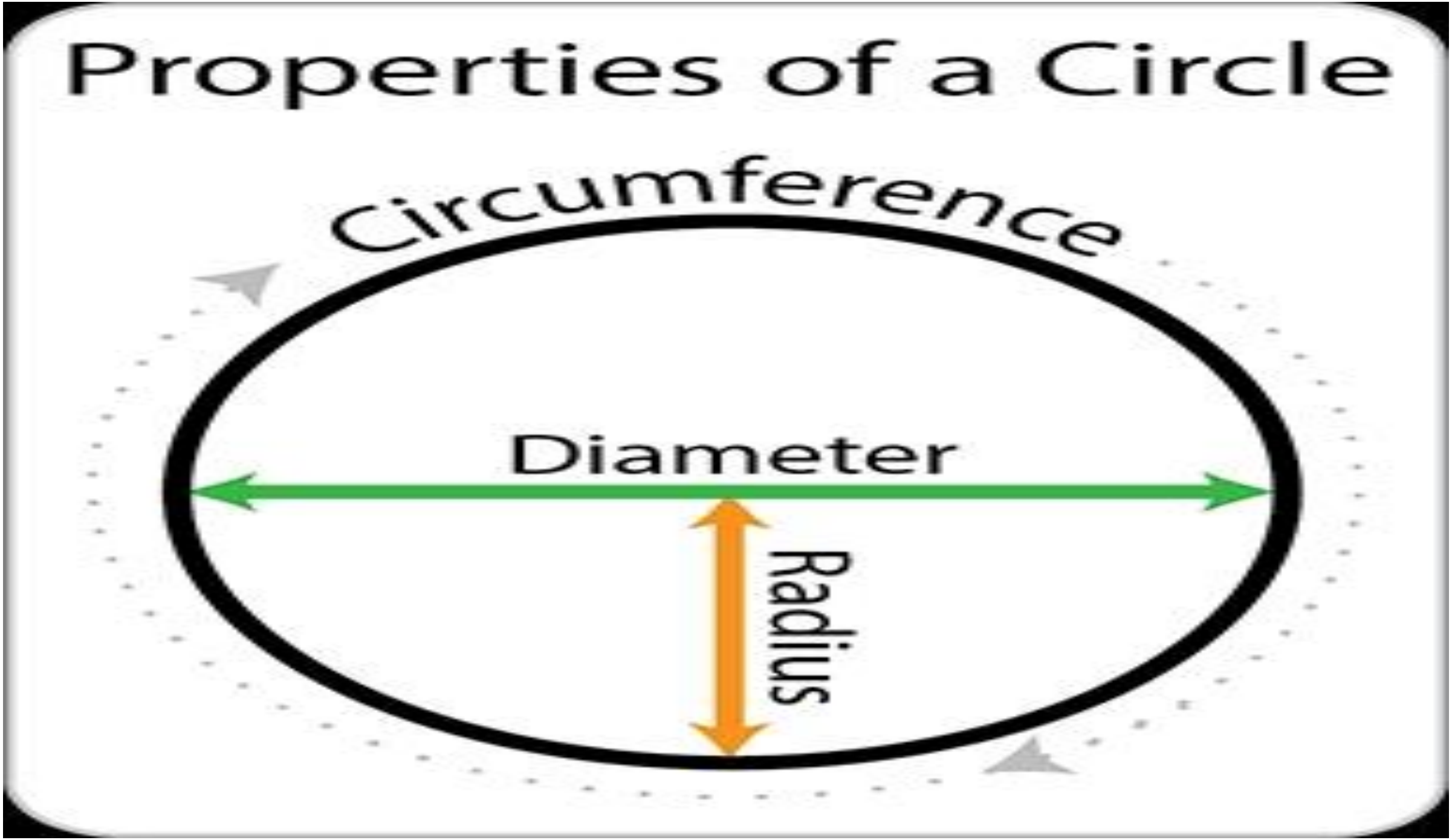
Uses of pi value in day to day life:

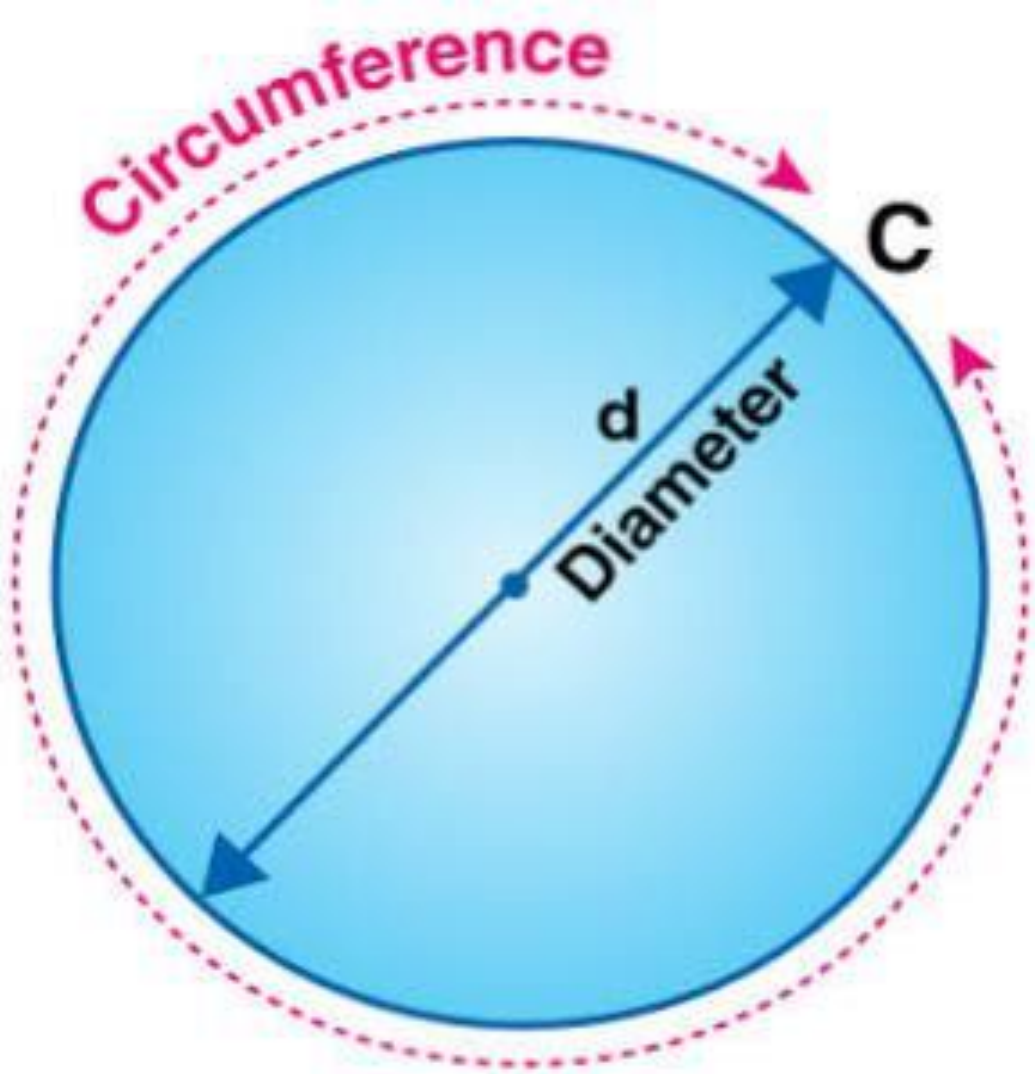
1. By using this pi value estimation methods, we can easily estimate the radius and diameter of a circular object.
2. Pi value is used in mentioning degrees
3. Pi is used to find area and circumference of a circle.
4. Pi is used in most calculations for building and construction, quantum physics, communications, music theory, medical procedures, air travel, and space flight.
5. Our ancestors use pi estimation ways to make pots and wheels etc.,


7 cm
22 cm

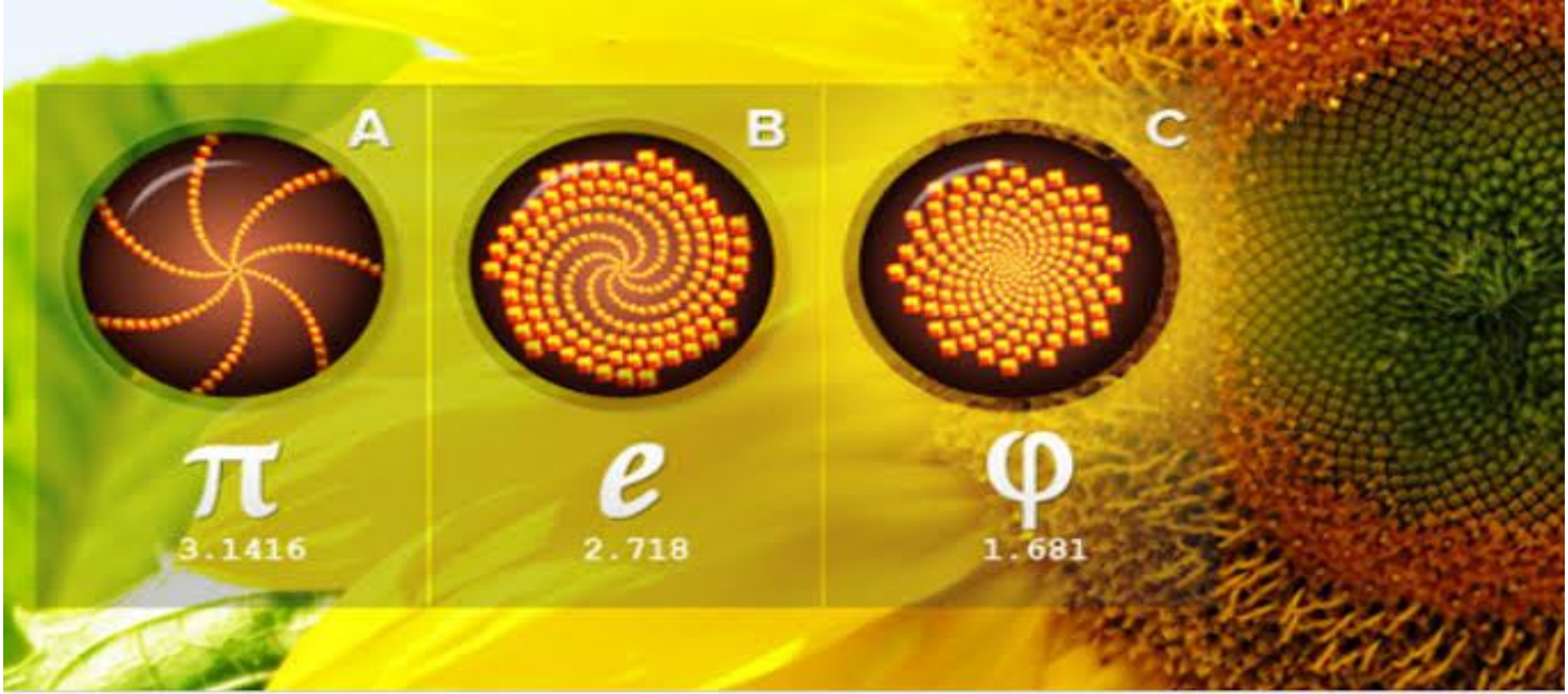
diameter = 1.07

Properties of a Circle

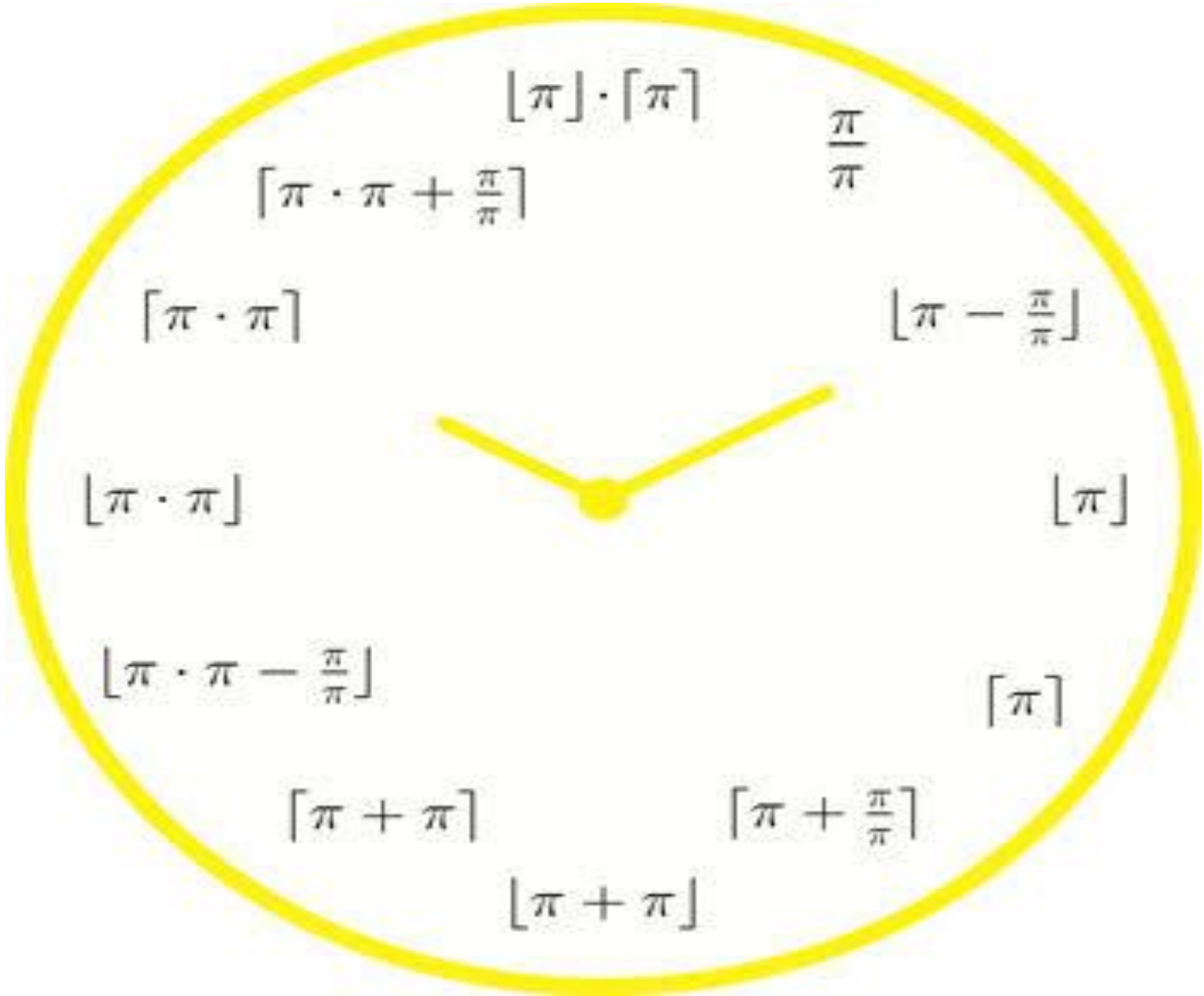




$$\frac{\text{Circumference}}{\text{Diameter}} = \pi = 3.14159.....$$



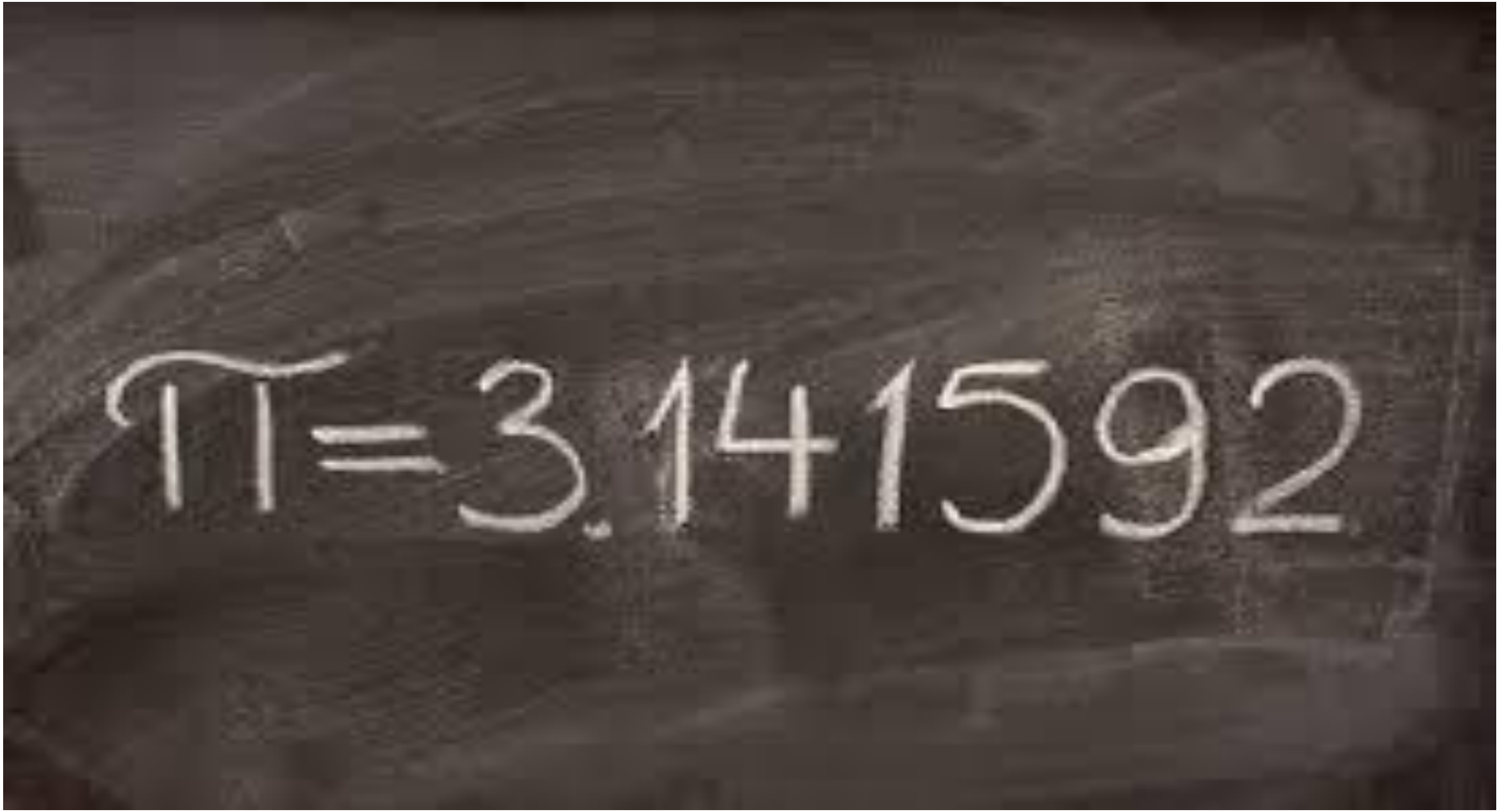
The pattern of seeds in this beautiful sunflower is controlled by the golden ratio. Patterns A and B on the left are what the seed spirals would look like if Nature had used a different irrational number. Pattern C shows the golden ratio at work.


$\lfloor \pi \rfloor \cdot \lceil \pi \rceil$
$\frac{\pi}{\pi}$
$\lceil \pi \cdot \pi + \frac{\pi}{\pi} \rceil$
$\lceil \pi \cdot \pi \rceil$
$\lfloor \pi - \frac{\pi}{\pi} \rfloor$
$\lfloor \pi \cdot \pi \rfloor$
$\lfloor \pi \rfloor$
$\lfloor \pi \cdot \pi - \frac{\pi}{\pi} \rfloor$
$\lceil \pi \rceil$
$\lceil \pi + \pi \rceil$
$\lceil \pi + \frac{\pi}{\pi} \rceil$
$\lfloor \pi + \pi \rfloor$

#Pi day:

- Enjoy Pi Day Like Never
- Calculate All Day Long
- Predict and Win
- Enjoy the Pi Day
- Be a Nerd, Be Like Pi
- Pi Day Is for The Legends
- Pi Is so Pi-Rated
- Take Is Easy as 3.14

- A Calculation Worth Doing
- Be Irrational, Pi Day Is Here
- My Desires Are Like Pi, It Never Ends
- I Want a Pie on This Pi Day
- Be Rational, Get Real
- Pi Makes You Go Round
- Becoming a Pi Champion
- Be Rational and Get Real


π=3.141592

Conclusion:

- Thus by using this buffon's needle experiment we can easily estimate the value of pi for that particular needle or any object.
- "Without maths …
- There is no survivals "

The End