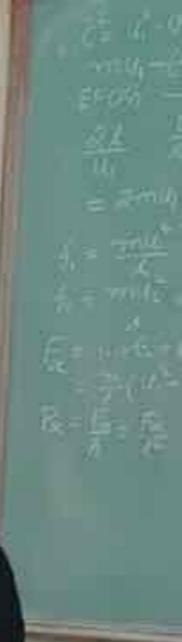
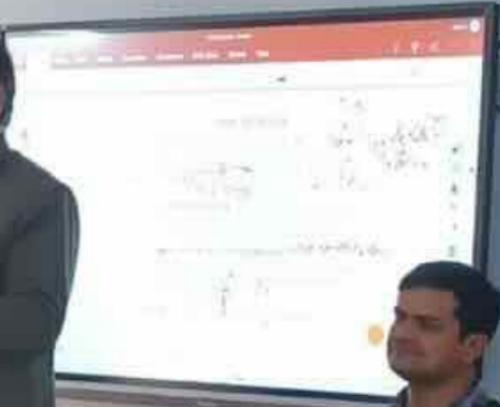


गणित विभाग द्वारा आज दिनांक 13/02/2023 को एक सेमिनार का आयोजन किया गया जिसका शीर्षक था " मानव जीवन में गणित की उपयोगिता " कार्यक्रम कि अध्यक्षता कालेज के प्राचार्य प्रोफेसर अनिल कुमार सिंह ने किया अपने सम्बोधन मे कहा कि गणित वह भाषा है जिसमें परमेश्वर ने संपूर्ण जगत या ब्रह्मांड को लिख दिया है अन्य विषयों की अपेक्षा गणित का हमारे दैनिक जीवन से गहरा संबंध है गणित संस्कृति एवं सभ्यता का सृजनकर्ता एवं पोषक भी माना जाता है । गणित विभागाध्यक्ष प्रोफेसर उमेश कुमार गुप्त ने कहा कि गणित हर सभी के अंदर एक नयी परिकल्पना और सोच विकसित करता है यह हमारी सभ्यता एवं संस्कृति का दर्पण है । गणित व्यक्ति की मानसिक शक्तियों का विकास करती है। सेमिनार के संयोजक डॉ अमित कुमार राय एवं डॉ आकाश पांडेय रहे । इस अवसर पर डॉ आर एन शुक्ल , डॉ आर एन यादव तथा डॉ बी के गुप्ता एवं छात्र -छात्राएं उपस्थित रहे ।



$\sigma = \mu - \rho$   
 $\rho = \frac{\sigma}{\lambda}$   
 $\lambda = \frac{\sigma}{\rho}$   
 $\tau = \frac{\sigma}{\lambda}$   
 $\rho = \frac{\sigma}{\lambda}$   
 $\tau = \frac{\sigma}{\lambda}$   
 $\rho = \frac{\sigma}{\lambda}$   
 $\tau = \frac{\sigma}{\lambda}$





## Basic terminologies used in theorem

- **Analytic Function**- A function is said to be analytic at a point if it is differentiable everywhere in some neighborhood of that point.
- e.g.-  $z^2$
- **Regular Function**- If a function is analytic at all points of its domain then it is called Regular function.
- **Convergent series**- A series is convergent if the sequence of the partial sums tends to a limit.
- **Radius of Convergence**- The radius of convergence of a power series is the radius of the largest disk at the center of the series in which the series converges.

# Brook Taylor

Brook Taylor was a great scientist born on 18 August 1685 in England and died on 29 December 1731.

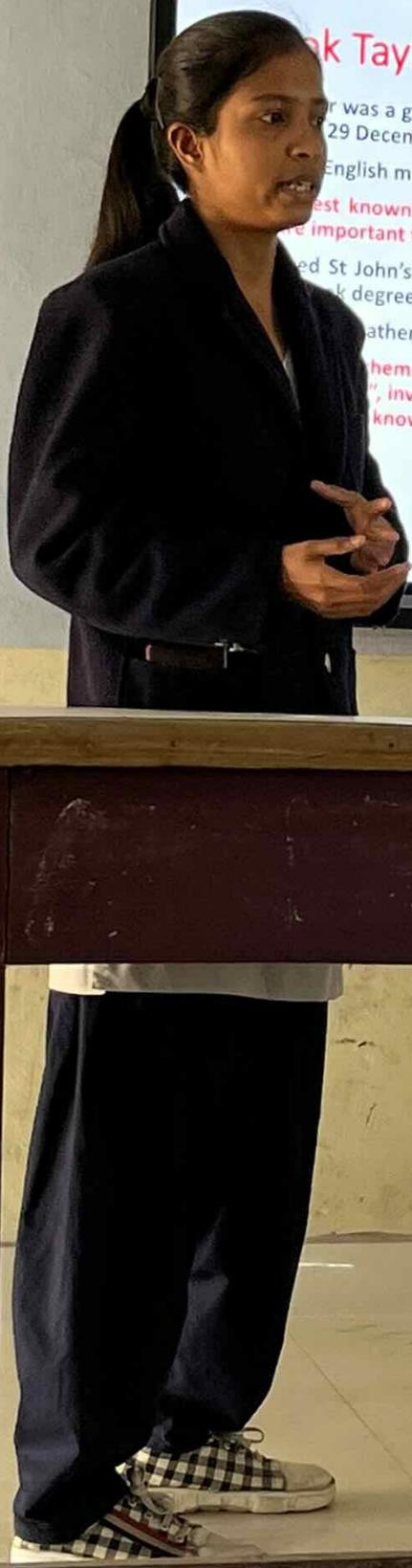
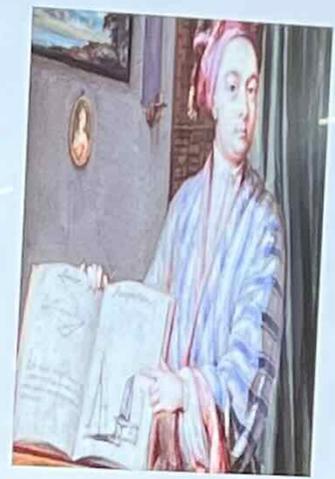
He was an English mathematician.

He is best known for creating Taylor theorem and Taylor series, which are very important for their use in mathematical analysis.

He studied at St John's College, Cambridge, as a fellow-commoner in 1703, and earned degrees in LL.B. in 1709 and LL.D. in 1774.

He studied mathematics under John Machin and John Keill.

He introduced mathematics a new branch now called the "Calculus of Fluxions", invented integration by parts, and discovered the binomial expansion, now known as Taylor's Expansion.



## DEFINITION OF OPEN SET

Let  $(X, d)$  be a metric space and  $E \subset X$  then  $E$  is said to be open if at each point of  $E$ , we can draw an open sphere which contains  $E$ . i.e.,

$$\forall a \in E \quad \exists r > 0 \text{ be a real number}$$

s.t.

$$S_r(a) \subset E$$

Example:-

Let  $E = \mathbb{Q}$

we know that,

$A \subset X$  is said to be open iff  $x \in A$  at

$$S_r(x) \subset A$$

$\forall r > 0$

then  $x \in A$

since  $\forall x \in X \exists S_r(x) \subset E$

$\forall x \in E = \mathbb{Q}$

then  $E$  is open



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