

PROPERTIES

1. The first property is that the function f is continuous on the interval $[a, b]$. This means that there are no jumps or breaks in the function over this range.

2. The second property is that the function f is differentiable on the interval (a, b) . This implies that the function has a unique tangent line at every point within this open interval.

3. The third property is that the function f is concave up on the interval (a, b) . This indicates that the slope of the function is increasing as x increases.

4. The fourth property is that the function f has a local maximum at $x = c$ within the interval (a, b) . This means that $f(c)$ is greater than or equal to $f(x)$ for all x in a neighborhood around c .

CONCLUSION

In conclusion, the function f exhibits several key characteristics: it is continuous on $[a, b]$, differentiable on (a, b) , concave up on (a, b) , and has a local maximum at $x = c$. These properties are essential for understanding the behavior of the function and for applying various mathematical techniques.

LINGSTON



The map illustrates the geographical layout of the Lingston region, highlighting the connectivity between the islands and the mainland. The roads provide a network for transportation and communication across the area.