Figure 1: The representation of a curve by an equation

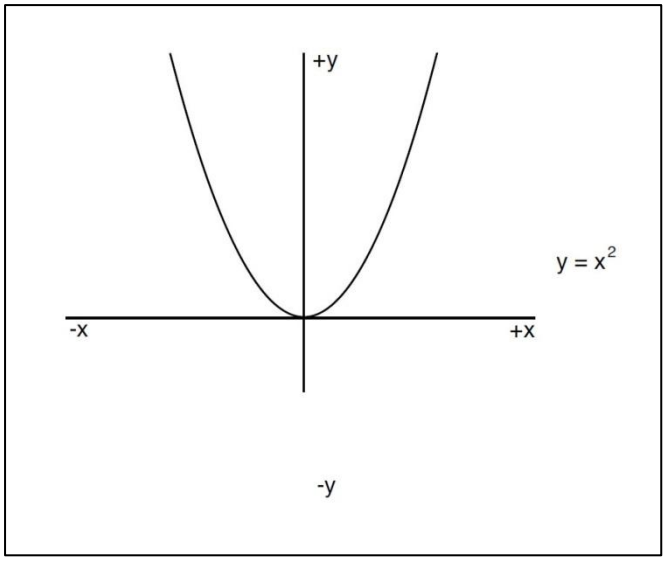

Figure 2: The rate of change of x against y for any given values (ie, at any given point on a curve) is the tangent to the curve at that point.

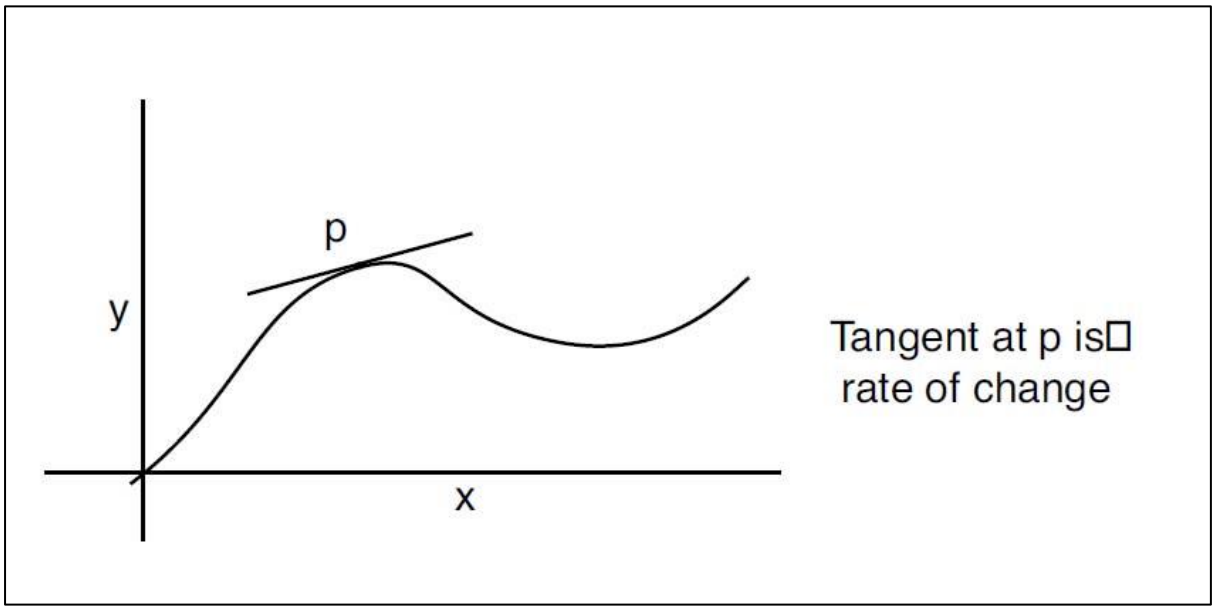

Figure 3: Archimedes' method of determining the area of a circle

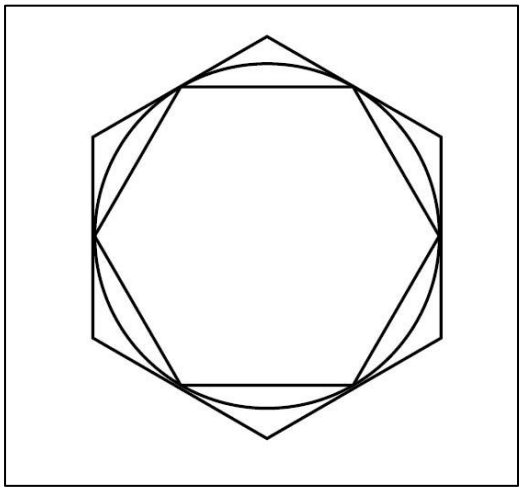

Figure 4: Applying calculus to the tangent to a curve.

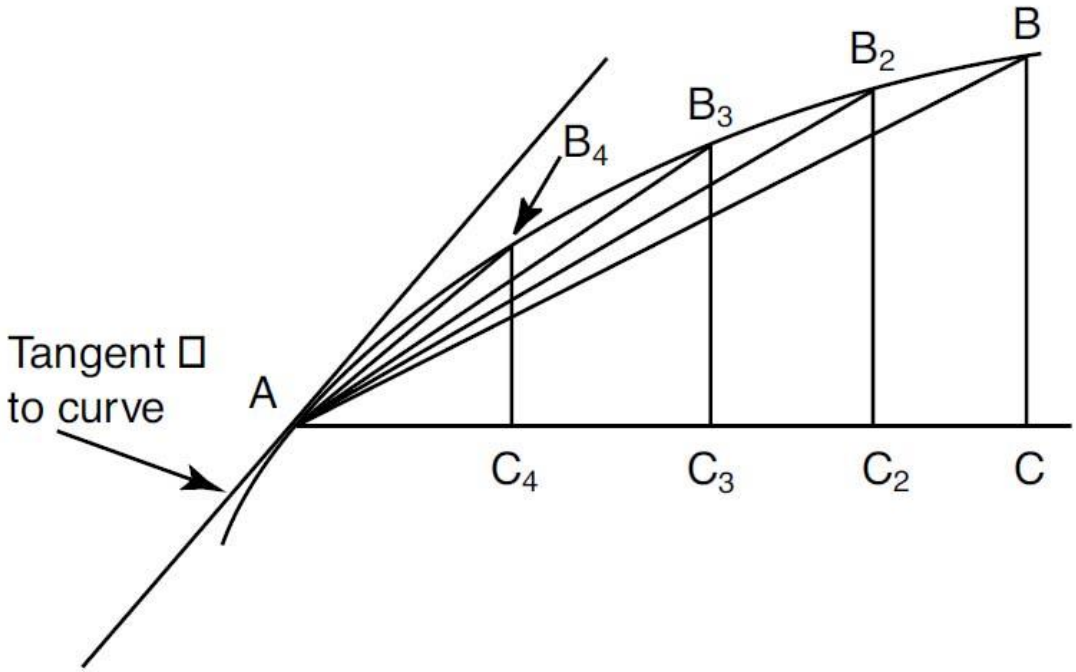

Figure 5: Applying calculus to calculating the area beneath a curve.

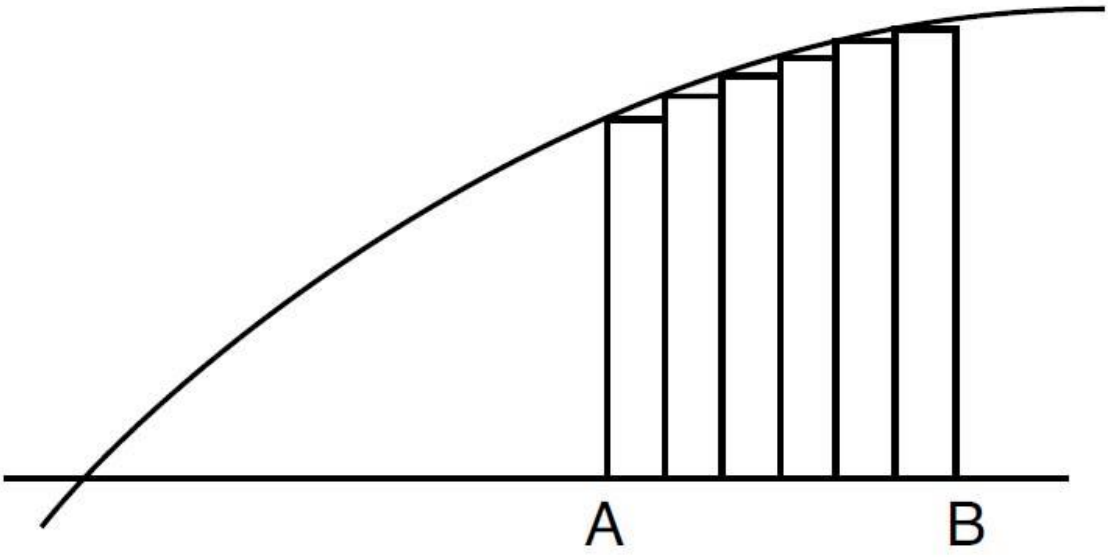

Figure 6: An example of differential calculus where n=2 . The gradient of the tangent at any point on the curve will always be 2x.

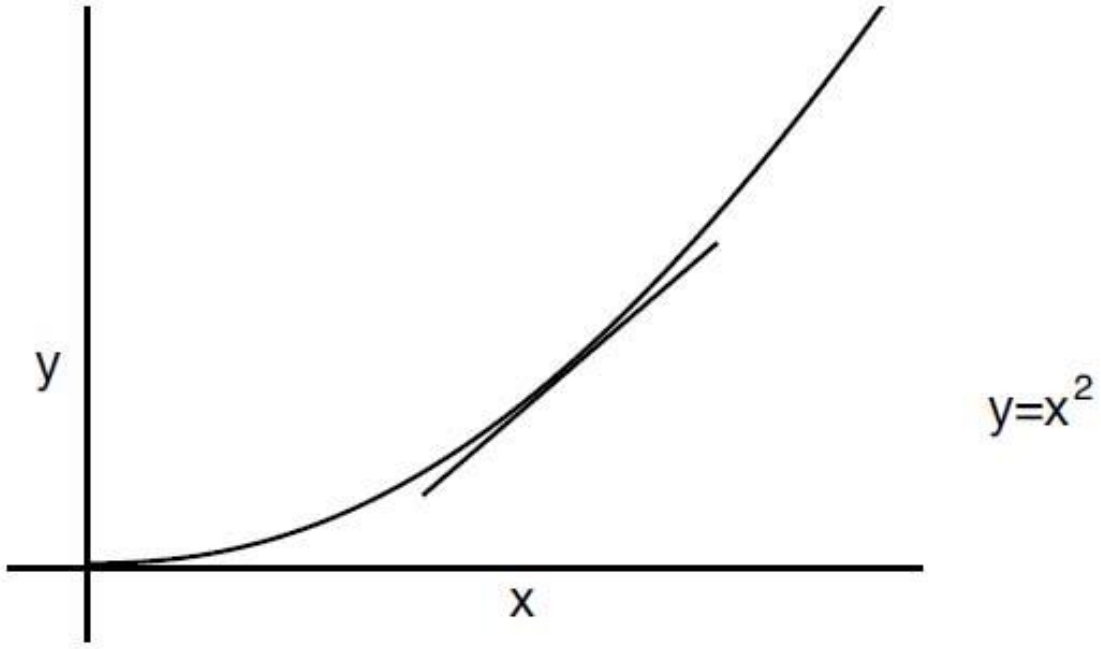

Figure 7: The maximum and minimum points in any curve occur when the gradient is equal to zero.

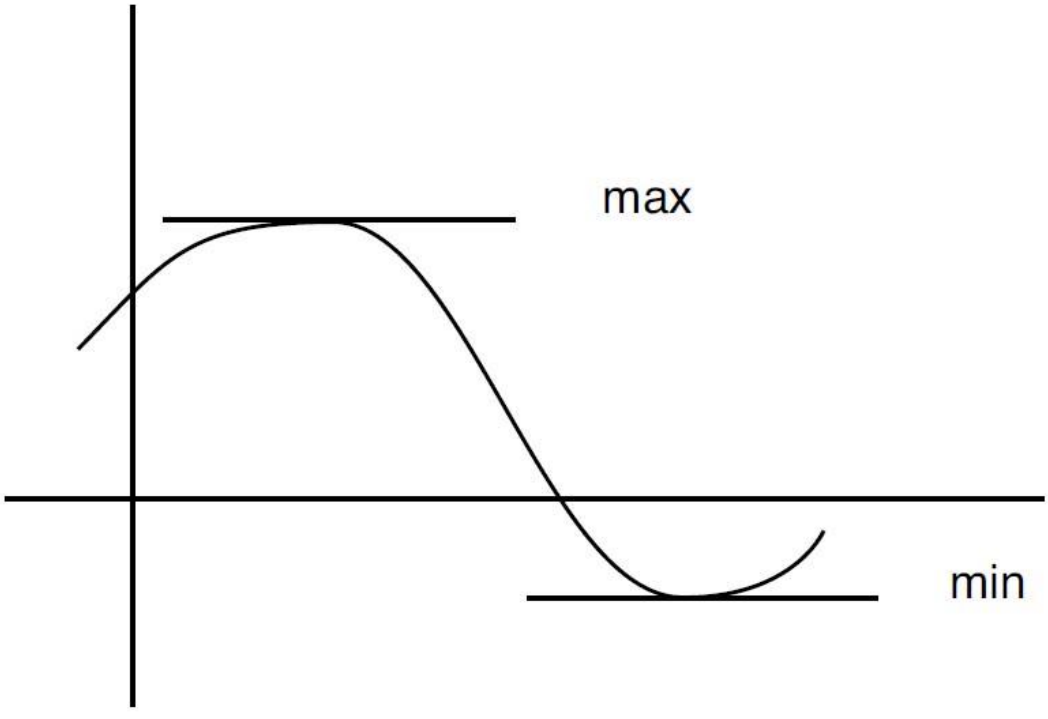

Figure 8: Kepler's laws of planetary motion

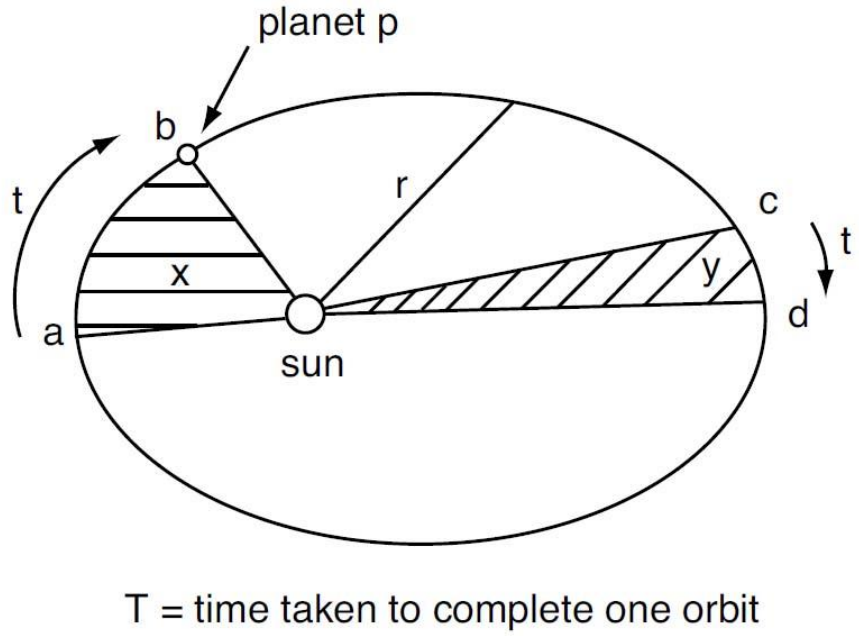

Figure 9: The pull of gravity makes an object accelerate. The momentum of the object impels it along a line of force. The two balance, resulting in orbit.