Maths Class 11 Formula

Calculus Formula

- d/dx [f(x) + g (x)] = d/dx [f(x)] + d/dx [g(x)]
- d/dx [f(x) - g (x)] = d/dx [f(x)] - d/dx [g(x)]
- d/dx [f(x) × g (x)] = d/dx [f(x)] × [g(x)] + [f(x)] × d/dx [g(x)]
- d/dx [f(x) / g (x)] = {d/dx [f(x)] × [g(x)] - [f(x)] × d/dx [g(x)]} / g(x)^2

Trigonometry Formulas

- $\sin(90° - A) = \cos A$
- $\cos(90° - A) = \sin A$
- $\tan(90° - A) = \cot A$
- $\cot(90° - A) = \tan A$
- $\sec(90° - A) = \csc A$
- $\csc(90° - A) = \sec A$
- $\sin^2 \theta + \cos^2 \theta = 1 \Rightarrow \sin^2 \theta = 1 - \cos^2 \theta \Rightarrow \cos^2 \theta = 1 - \sin^2 \theta$
- $\csc^2 \theta - \cot^2 \theta = 1 \Rightarrow \csc^2 \theta = 1 + \cot^2 \theta \Rightarrow \cot^2 \theta = \csc^2 \theta - 1$
- $\sec^2 \theta - \tan^2 \theta = 1 \Rightarrow \sec^2 \theta = 1 + \tan^2 \theta \Rightarrow \tan^2 \theta = \sec^2 \theta - 1$
- $\sin \theta \csc \theta = 1 \Rightarrow \cos \theta \sec \theta = 1 \Rightarrow \tan \theta \cot \theta = 1$

Coordinate Geometry Formulas

- Slope of a line (m) = rise/run = $\Delta y / \Delta x = y2 - y1 / x2 - x1$
- Point-Slope Form $y - y1 = m (x - x1)$

Algebra Formulas

- $a × (b + c) = a × b + a × c$ (Distributive property)
- $a + b = b + a$ (Commutative Property of Addition)
- $a × b = b × a$ (Commutative Property of Multiplication)

- a + (b + c) = (a + b) + c (Associative Property of Addition)
- a × (b × c) = (a × b) × c (Associative Property of Multiplication)
- a + 0 = a (Additive Identity Property)
- a × 1 = a (Multiplicative Identity Property)
- a + (-a) = 0 (Additive Inverse Property)
- a·(1/a) = 1 (Multiplicative Inverse Property)
- a × (0) =0 (Zero Property of Multiplication)