

CLASS 11

MATHS

REVISION NOTES

Class 11 Maths Chapter 12 Limits and Derivatives – Revision Notes

Quick revision notes for Class 11 Maths Chapter 12 (Limits and Derivatives). These Class 11 Maths Chapter 12 notes are ideal for quick revision just before exams.

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Limits

$\lim_{x \rightarrow a} f(x)$: value $f(x)$ approaches as $x \rightarrow a$.

Algebra of limits: sum/product/quotient rules apply term-wise.

Standard Limits

$$\lim_{x \rightarrow 0} \sin x / x = 1.$$

$$\lim_{x \rightarrow a} (x^n - a^n) / (x - a) = na^{n-1}.$$

Derivatives

$$f'(x) = \lim_{h \rightarrow 0} [f(x+h) - f(x)] / h.$$

$$d/dx(x^n) = nx^{n-1}; d/dx(\sin x) = \cos x; d/dx(\cos x) = -\sin x; d/dx(\text{constant}) = 0.$$

One-Line Summary

Limits describe the value a function approaches, forming the foundation for derivatives, which measure a function's exact instantaneous rate of change (slope of the tangent) using a limiting process.

Class 11 Maths Chapter 12 – Solutions and Important Questions

Need full answers or more practice? See the [Class 11 Maths Chapter 12 Solutions](#) and [Class 11 Maths Chapter 12 Extra Questions](#).

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