

<https://brainshineacademy.com/course/class-11-cbse-mathematics/>

# **BRAINSHINE** **ACADEMY**

*Online*  
**HOME**  
**TUITIONS**



**9080138609**

[www.brainshineacademy.com](http://www.brainshineacademy.com)

# BRAINSHINE ACADEMY



## How Our Online Tuition Works

### Book a Free Consultation:

Start by filling out our online form or contacting us. We'll understand your needs and match you with the right tutor.

### Customized Learning Plan:

After assessing your requirements, we create a personalized lesson plan that works best for you.

### Live Sessions:

Engage in interactive live sessions with your tutor via video conferencing tools. You'll be able to ask questions, get instant feedback, and track progress in real-time.

### Study Materials & Homework Help:

Receive study materials, practice worksheets, and homework support to reinforce your learning.

### Progress Tracking:

Regular feedback and progress reports will help you stay on track and achieve your learning goals.

## **CLASSES WE OFFER**

### **ONE-TO-ONE:**

We allocate one teacher to only one student so that the student interact with teacher and learn the concepts thoroughly.

### **GROUP CLASS FOR 5 STUDENTS:**

We allocate one teacher for group of 5 students. This promotes friendly competition and interactive classes while simultaneously maintaining an individual learning experience for each student.

### **GROUP CLASS FOR 10 STUDENTS:**

We allocate one teacher for group of 10 students. All the features are the same as above group class and it is cost effective.

### **GOAL:**

Make the students master the concepts deeply.

### **PRACTICE STYLE:**

Let the students understand the concepts through explaining with real time examples.

### **TEACHING APPROACH:**

Teacher cues the student to discover the answer.

The teachers here are highly experienced and well-qualified, having graduated from prestigious institutions such as IIT, NIT, IIIT, CLRI, Anna University, and others. Their expertise and strong academic background contribute significantly to the high-quality education provided.



## What We Do?

*At Brainshine Academy, we offer comprehensive range of online tutoring services designed to support students at every stage of their academic journey.*

## Why choose us?

**Personalized learning:** We provide tutoring sessions to each student's unique needs, learning style, and pace. Our tutors adapt their methods to ensure every lesson is both engaging and effective.

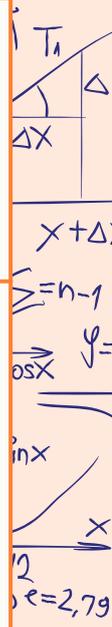
**Test Preparation & Exam Strategies:** Our test preparation services focus on strategy, practice, and review to help you succeed in your exams.

**Progress Monitoring & Feedback:** We track your progress and provide regular updates on your improvement. Our tutors give constructive feedback, recommend areas for further growth, and ensure you stay on track to meet your academic goals.

**Homework Assistance:** We offer tutoring sessions to support you with school projects, essays, and homework.



# MATHEMATICS CURRICULUM



Topic	Sub Topic	No. of Classes
Sets	Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.	2-3
Relations & Functions	Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto $\mathbb{R} \times \mathbb{R} \times \mathbb{R}$ ). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.	3-4
Trigonometric Functions	Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$ , for all $x$ . Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of $\sin x$ , $\sin y$ , $\cos x$ & $\cos y$ and their simple applications.	4-5
Complex Numbers and Quadratic Equations	Need for complex numbers, especially $\sqrt{-1}$ , to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane	2-3
Linear Inequalities	Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.	3-4
Permutations and Combinations	Fundamental principle of counting. Factorial $n$ . ( $n!$ ) Permutations and combinations, derivation of Formulae for $nPr$ and $nCr$ and their connections, simple applications.	2-3
Binomial Theorem	Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.	2-3





Sequence and Series	Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.	2-3
Straight Lines	Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line.	2-3
Conic Sections	Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.	2-3
Introduction to Three-dimensional Geometry	Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.	2-3
Limits and Derivatives	Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.	3-4
Statistics	Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.	2-3
Probability	Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.	3-4



# WHAT STUDENTS SAY

Y

★★★★★

- by Yuvaraj  
attended BTech Tuition  
posted on 04 Jul, 2018

"Vastly experienced, Elusive teaching, clears doubt on par to the student capacity, motivating person."

R

★★★★★

- by RAJAVIKNESH  
attended Class 11 Tuition  
posted on 04 Jul, 2018

"Excellent in teaching. Level of teaching is totally well and good. I recommend. Tutor is having good knowledge on teaching the subjects. Especially I get support whenever I needed."

R

★★★★★

- by Rajesh  
attended Class 10 Tuition  
posted on 04 Jul, 2018

"Way of explaining the concepts is very good. Theoretical as well as technically good."

G

★★★★★

- by GEETHA BIMALRAJ  
attended Class 9 Tuition  
posted on 05 Jul, 2018

"Excellent tutor. Very dedicated and thorough in teaching. Has been teaching for the last three years and have not had any issues. definitely recommended."

T

★★★★☆

- by Thamim Fathima Nisha.A  
attended BTech Tuition  
posted on 12 Jul, 2018

"Very good. He is more interactive with us. He teaches us more concepts clearly. He clears our doubts without any hesitation."

P

★★★★★

- by Pavi

attended **Class 12 Tuition**

posted on 24 Sep, 2019

"Best one for all subject well experience in all subjects daily tests and clearing doubts with an example soon. "

S

★★★★★

- by Saravanan

attended **Class 10 Tuition**

posted on 24 Sep, 2019

"Good mentor. Really helped in my exam preparation. Thank you sir for being my tuition teacher. "

B

★★★★★

- by Bharathi

attended **Class 10 Tuition**

posted on 24 Sep, 2019

"Rajavel sir is very kind and humble. He won't scold if done a mistake. We can easily understand when he teaches. He will teach us a line by line. He is the best teacher I have ever seen in my life. "

★★★★★

- by Sathidevi S Raj

attended **Class 10 Tuition**

posted on 25 Sep, 2019

"Very polite and humble. Makes the student understand the concepts in easiest and spends quality time with student. Student is very comfortable. "

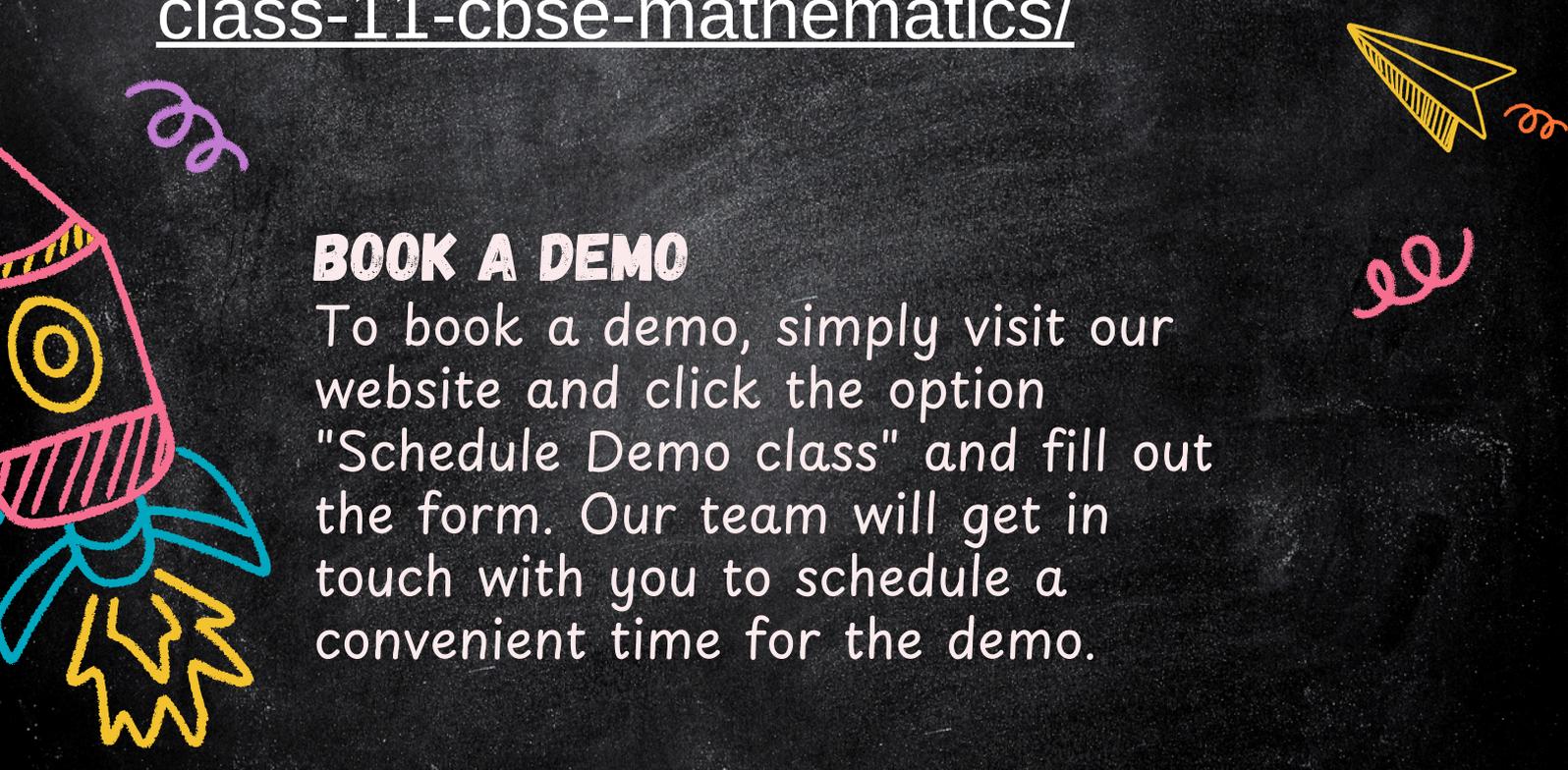


thank  
you

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### BOOK A DEMO

To book a demo, simply visit our website and click the option "Schedule Demo class" and fill out the form. Our team will get in touch with you to schedule a convenient time for the demo.

"We motivate the students to build skills and develop confidence as they pursue educational success."