

[IIT-JEE MATHEMATICS]

JEE MAIN 2027

2027

120 DAYS *Countdown*

CLASS 12 AND DROPPERS

MATHEMATICS

DAY BY DAY

IN THIS COUNTDOWN

DAY 1 TUE 1 SEPTEMBER 2026
DAY 120 TUE 29 DECEMBER 2026
SYLLABUS IN 120 DAYS · 15 BLOCKS
JANUARY 10 MOCKS · 10 ANALYSIS DAYS
TESTS INSIDE 16 PRACTICE · 5 UNIT · 5 FULL
NOTES FROM RITESH SIR, AT FIVE STAGES

[120 DAYS]

How the countdown works

One hundred and twenty days, one topic a day, counted to a fixed end. Day 1 is Tuesday 1 September 2026 and day 120 is Tuesday 29 December 2026. The dates are not suggestions. The count only works if the day on the sheet is the day you sit down.

Each month is a calendar, not a list, because that is how a day is actually lived. The gold chip in a cell is the day number of the countdown; the date sits beside it. A day set in bold is a test day, and there are twenty-six of them before January.

The syllabus is taken in fifteen blocks, and each closes with its own practice test before the next opens. The last eleven days are unit tests and full syllabus practice, which is where you find out what the first hundred days actually left behind.

January is the run-up. A full syllabus mock, then a day to read it back, alternating to the twentieth. The analysis day is not a rest day. It is the day the mock earns its keep: every wrong answer into the error log with the reason it was wrong, and the reason is one of three, not knowing it, knowing it and misreading, or knowing it and running out of time. Those three need different fixes.

Five times in the hundred and twenty days there is a note from Ritesh sir, set apart on its own card. Those come at days 23, 43, 60, 93 and 120, at the ends of the stretches they judge. Read them on the day they fall, not before.

[DAY BY DAY]

The hundred and twenty *days*

September 2026 DAY 1 TO 30 · BLOCK 01 TO 04

MON	TUE	WED	THU	FRI	SAT	SUN
	01 1 Sep Sets, Venn diagram algebra	02 2 Sep Types of relation, equivalence	03 3 Sep One-one, into, onto	04 4 Sep Domain, range, odd-even	05 5 Sep Inverse and composition	06 6 Sep Practice test: sets
07 7 Sep Matrices, algebra, transpose	08 8 Sep Symmetric, skew-symmetric	09 9 Sep Transformation, inverse	10 10 Sep Determinants, minors, cofactors	11 11 Sep Adjoint, Cramer's rule	12 12 Sep Practice test: matrices	13 13 Sep Trig basics, compound angles
14 14 Sep Maximum and minimum values	15 15 Sep Periodic functions	16 16 Sep Trigonometric equations	17 17 Sep Transformation formulae	18 18 Sep Inverse trig functions	19 19 Sep Inverse hyperbolic	20 20 Sep Solutions of triangle
21 21 Sep Radii of circles	22 22 Sep Heights and distances	23 23 Sep Practice test: trigonometry	24 24 Sep Limits	25 25 Sep Continuity	26 26 Sep Differentiability	27 27 Sep Differentiation, by substitution
28 28 Sep Higher order derivatives	29 29 Sep Mean value theorems	30 30 Sep Maxima-minima, tangents				

RITESH SIR · AFTER DAY 23

Topic 1, day 1 is important from the board point of view. Topic 2, day 1, the Venn diagram, is very helpful in solving practical problems based on sets; this portion of the syllabus is also very helpful in understanding the concept of probability. In JEE usually 1 question is asked from topics 1 and 2 of day 4. Topic 4, day 8 is useful in solving practical problems based on application of matrix. Topics 1 and 2, days 18 and 19 are very important for JEE, specially the graph of trigonometric and inverse trigonometric functions, for solving questions in a very short span of time. Topics 2 and 3, days 20 and 21, and topic 1, day 22, are also important, specially for finding the incentre and excentre of the in-circle and escribed circle, and in finding the height of a tower or building in different situations.

As most of the part of the first 14 days serves as the basis for gripping the subject, it is advisable not to move on to day 15 topics until you develop confidence in these topics.

October 2026

DAY 31 TO 61

BLOCK 04 TO 09

MON	TUE	WED	THU	FRI	SAT	SUN
			31 1 Oct Indefinite integrals	32 2 Oct Substitution, parts, partial	33 3 Oct Definite integral, fundamentals	34 4 Oct Definite: substitution, parts
35 5 Oct Summation of series	36 6 Oct Gamma, Leibnitz, Walli's	37 7 Oct Area of curves	38 8 Oct Volume and surface area	39 9 Oct Order and degree of a DE	40 10 Oct Formation and solution	41 11 Oct Homogeneous equations
42 12 Oct Linear differential equations	43 13 Oct Test of calculus	44 14 Oct Mathematical induction	45 15 Oct Practice test: induction	46 16 Oct Binomial theorem	47 17 Oct Binomial coefficients	48 18 Oct Multinomial theorem
49 19 Oct Practice test: binomial	50 20 Oct Permutation	51 21 Oct Combination as selection	52 22 Oct Practice: P and C	53 23 Oct AP, GP, HP	54 24 Oct AM, GM, HM	55 25 Oct Relations between AP, GP, HP
56 26 Oct Relation between AM and GM	57 27 Oct Sum of special series	58 28 Oct Logarithmic series	59 29 Oct Exponential series	60 30 Oct Practice: sequence and series	61 31 Oct Cartesian coordinates	

RITESH SIR · AFTER DAY 43

Topic 1, days 24, 25 and 26 are important for JEE, as generally 1 question is asked every year; however, this portion of the syllabus serves as the basic need to grip differential calculus. Topic 1, day 29 is important and has wide application, such as in finding the roots of a polynomial within a given interval. Topics 1 and 2, day 30 are important from the board as well as the JEE point of view. Aspirants are advised to focus on these topics.

Topics 1 and 2 of day 32 are very helpful in gripping the basics of integral calculus. The topics related to definite integrals of days 34, 35 and 36 are very important for JEE and have several application based questions, such as finding the sum of a given series, while the Leibnitz rule is useful for differentiation under the integration sign. Topics based on application of definite integration are very important for direct questions, while all topics of days 41 and 42 are important for direct as well as application based questions. Random and planned testing is required to judge the exact learning.

RITESH SIR · AFTER DAY 60

Topic 44 is less important from the JEE point of view but important for divisibility based problems. Topics of the binomial theorem, till day 49, are important and have several application based problems. It also helps in solving problems based on combinations. Topics on days 50 and 51 are important as they have wide application and are useful to solve problems of probability. Topics after day 60 belong to class XI and need to be recalled more than once. All the topics till days 55 and 56 have problems related to the n th term, the sum to n terms, and also the sum of infinite terms, important to be asked as direct and application based questions. All the topics till day 58 are required essentially for the basics of logarithm and exponential functions. Students are advised to focus on some special series like the arithmetico-geometric series and telescopic sum.

Use random testing for topics till day 60 for self analysis, and use planned tests in two sections: (a) day 1 to 23, and (b) day 34 to 60, for proper assessment and to gain confidence.

November 2026 DAY 62 TO 91 · BLOCK 09 TO 11

MON	TUE	WED	THU	FRI	SAT	SUN
						62 1 Nov Straight line
63 2 Nov Circle and its equation	64 3 Nov Tangent and normal to a circle	65 4 Nov Chord of contact, pole	66 5 Nov Polar system of circles	67 6 Nov Parabola, tangent	68 7 Nov Director circle, pole and polar	69 8 Nov The ellipse
70 9 Nov Hyperbola, chord, tangent	71 10 Nov Asymptote, rectangular hyperbola	72 11 Nov Practice test: coordinate	73 12 Nov Direction ratios, cosines	74 13 Nov Skew lines, shortest distance	75 14 Nov Line and plane, forms	76 15 Nov Intersection of line and plane
77 16 Nov Coplanar lines	78 17 Nov Practice: coordinate geometry	79 18 Nov Vectors and scalars, 2D and 3D	80 19 Nov Scalar and vector products	81 20 Nov Triple products	82 21 Nov Test of 3D and vector algebra	83 22 Nov Mean, median, mode: grouped
84 23 Nov Mean, median, mode: ungrouped	85 24 Nov SD, variance: grouped	86 25 Nov SD, variance: ungrouped	87 26 Nov Practice test: statistics	88 27 Nov Addition, multiplication	89 28 Nov Probability distribution	90 29 Nov Baye's theorem
91 30 Nov Bernoulli's trial						

December 2026

DAY 92 TO 120 · BLOCK 11 TO 15

MON	TUE	WED	THU	FRI	SAT	SUN
	92 1 Dec Binomial distribution	93 2 Dec Practice test: probability	94 3 Dec LPP, objective function	95 4 Dec Types of LPP	96 5 Dec Graphical solution, two variables	97 6 Dec Feasible region, optimum
98 7 Dec Practice test	99 8 Dec Complex numbers, Argand diagram	100 9 Dec Algebra, modulus, argument	101 10 Dec Triangle inequality	102 11 Dec Square root	103 12 Dec Quadratic, real and complex	104 13 Dec Roots and coefficients
105 14 Dec Nature of roots, formation	106 15 Dec Practice: complex and quadratic	107 16 Dec Test of algebra	108 17 Dec Reasoning, logic, truth table	109 18 Dec Tautology, contradiction	110 19 Dec Unit test: calculus	111 20 Dec Unit test: trigonometry
112 21 Dec Unit test: coordinate	113 22 Dec Unit test: vector and 3D	114 23 Dec Unit test: probability	115 24 Dec Practice set: full syllabus	116 25 Dec Practice set: full syllabus	117 26 Dec Practice set: full syllabus	118 27 Dec Practice set: full syllabus
119 28 Dec Practice set: full syllabus	120 29 Dec Revision of important points	30 Dec	31 Dec			

RITESH SIR · AFTER DAY 93

All the topics till day 75 are very important, as 1 or 2 questions are asked in JEE, specially the director circle, pole and polar, and length of tangent and normal related to different conics. In three dimensional geometry: skew lines, shortest distance between them, intersections of lines and planes, and coplanar lines. Students are advised to focus on these topics. Topics 1 and 2 of day 80 are important and have direct and application based questions. All the topics till day 82 have wide application in mathematics as well as in physics. Topic 2, days 87 and 88, topic 1, day 89, and topic 1, days 89 and 91 are very important, as every year 1 question is asked in JEE from them, of direct as well as application based nature.

Begin this complete section every day with a randomised check, through a random test, to analyse your points of emphasis for your preparation.

RITESH SIR · AFTER DAY 120

This last segment of your preparation is important, as a considerable number of questions is asked in JEE generally from the topics: properties of modulus and argument, triangle inequality, and rotation of complex numbers.

All the topics till day 105 have direct and application based questions. The topic of days 108 and 109 is important from the JEE Main point of view, as every year 1 question is asked. Concepts of these topics are useful in boolean algebra as well as in computer organisation.

Try to complete the schedule of the last 20 days in 17 days approximately, as some loose days, days with lesser syllabus, are given in between. In the last 3 days use randomised testing of the complete syllabus to filter your weaker portion, and utilise these days to plug the weak points left.

For gaining confidence afterwards, use 2 or 3 simulator papers of the full syllabus and try to complete them approximately 15 minutes before the stipulated time, so that you can achieve the same under the examination conditions of stress within the stipulated time.

January 2027

THE RUN-UP · 10 MOCKS AND 10 ANALYSIS DAYS

MON	TUE	WED	THU	FRI	SAT	SUN
				M01 1 Jan	AN 2 Jan	M02 3 Jan
				Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock
AN 4 Jan	M03 5 Jan	AN 6 Jan	M04 7 Jan	AN 8 Jan	M05 9 Jan	AN 10 Jan
Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log
M06 11 Jan	AN 12 Jan	M07 13 Jan	AN 14 Jan	M08 15 Jan	AN 16 Jan	M09 17 Jan
Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log	Full syllabus mock, sat to the clock
AN 18 Jan	M10 19 Jan	AN 20 Jan	21 Jan	22 Jan	23 Jan	24 Jan
Read the paper back, every error into the log	Full syllabus mock, sat to the clock	Read the paper back, every error into the log				

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