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11,200 / 11,200 (100%)
Mastery points

Course summary


Mastery challenge

Strengthen skills you've already practiced in just 6 questions.

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Complex numbers	2000/2000 Mastery points
<p>What are the imaginary numbers?</p> <p>What are the complex numbers?</p> <p>The complex plane</p> <p>Adding and subtracting complex numbers</p> <p>Distance and midpoint of complex numbers</p>	<p>Multiplying complex numbers</p> <p>Complex conjugates and dividing complex numbers</p> <p>Identities with complex numbers</p> <p>Absolute value and angle of complex numbers</p> <p>Polar form of complex numbers</p> <p>Multiplying and dividing complex numbers in polar form</p>

Polynomials

800/800 Mastery points


Adding and subtracting polynomials: two variables

Polynomial division

The binomial theorem

Solving equations by graphing

The fundamental theorem of algebra



Composite functions


700/700 Mastery points

Composing functions

Invertible functions

Modeling with composite functions

Verifying inverse functions by composition



Trigonometry

600/600 Mastery points

Inverse trigonometric functions


Sinusoidal equations

Sinusoidal models


Trigonometric identities

Angle addition identities

Using trigonometric identities

 Vectors	1400/1400 Mastery points
Vectors introduction Magnitude of vectors Scalar multiplication Vector addition and subtraction Combined vector operations	Unit vectors Magnitude and direction form of vectors Component form of vectors Adding vectors in magnitude and direction form Vectors word problems

Matrices		1700/1700 Mastery points
Introduction to matrices	Properties of matrix multiplication	
Representing linear systems of equations with augmented matrices	Matrices as transformations	
Elementary matrix row operations	The determinant of a 2x2 matrix	
Row-echelon form and Gaussian elimination	Introduction to matrix inverses	
Adding and subtracting matrices	Finding the inverse of a matrix using its determinant	
Multiplying matrices by scalars	Practice finding the inverses of 2x2 matrices	
Properties of matrix addition & scalar multiplication	Solving equations with inverse matrices	
Multiplying matrices by matrices	Model real-world situations with matrices	




Series

1500/1500 Mastery points

Arithmetic sequences	Geometric series (with summation notation)
Geometric sequences	Arithmetic series
Geometric series	

Conic sections		1700/1700 Mastery points
Introduction to conic sections	Focus and directrix of a parabola	
The features of a circle	Introduction to hyperbolas	
Standard equation of a circle	Foci of a hyperbola	
Expanded equation of a circle	Hyperbolas not centered at the origin	
Center and radii of an ellipse	Identifying conic sections from their equations	
Foci of an ellipse	Challenging conic section problems (IIT JEE)	



Probability and combinatorics

800/800 Mastery points

Basic probability

Dependent events

Venn diagrams and the addition rule

Permutations

Compound probability of independent events using diagrams

Combinations


Compound probability of independent events using the multi...

Probability using combinatorics

Course challenge: 100% 2 months ago

Amazing work! Looks like you really know your stuff!

Take Course challenge again



 Community questions

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Change language