

AP Calculus BC

Past-Paper Exercise Sheets — Question Index

74 subtopics • 310 questions

1.15 Connecting Limits at Infinity and Horizontal Asymptotes

1 question • calculation

Source	Q	Type
2025	1	calculation

1.16 Working with the Intermediate Value Theorem (IVT)

5 questions • calculation $x4$, data response

Source	Q	Type
2026	1	calculation
2025	3	data response
2022	4	calculation
2016	1	calculation
2014	4	calculation

2.1 Defining Average and Instantaneous Rates of Change at a Point

7 questions • calculation $x7$

Source	Q	Type
2026	1	calculation
2026	3	calculation
2025	1	calculation
2024	1	calculation
2022	4	calculation
2014	1	calculation
2014	4	calculation

2.3 Estimating Derivatives of a Function at a Point

8 questions • calculation $x7$, data response

Source	Q	Type
2026	1	calculation
2025	3	data response
2024	1	calculation
2022	4	calculation
2021	1	calculation
2018	4	calculation
2016	1	calculation
2015	3	calculation

2.4 Connecting Differentiability and Continuity: Determining When Derivatives Do and Do Not Exist

1 question • calculation

Source	Q	Type
2017	3	calculation

2.6 Derivative Rules: Constant, Sum, Difference, and Constant Multiple

1 question • calculation

Source	Q	Type
2026	4	calculation

2.7 Derivatives of $\cos x$, $\sin x$, e^x , and $\ln x$

1 question • calculation

Source	Q	Type
2026	4	calculation

2.8 The Product Rule

1 question • calculation

Source	Q	Type
2021	4	calculation

2.9 The Quotient Rule

3 questions • calculation $x3$

Source	Q	Type
2019	5	calculation
2017	5	calculation
2014	3	calculation

3.1 The Chain Rule

2 questions • calculation x2

Source	Q	Type
2023	1	calculation
2014	3	calculation

3.2 Implicit Differentiation

1 question • calculation

Source	Q	Type
2025	5	calculation

3.6 Calculating Higher-Order Derivatives

4 questions • calculation x4

Source	Q	Type
2025	5	calculation
2023	6	calculation
2017	3	calculation
2016	4	calculation

4.1 Interpreting the Meaning of the Derivative in Context

6 questions • calculation x6

Source	Q	Type
2026	3	calculation
2023	1	calculation
2019	5	calculation
2018	2	calculation
2018	4	calculation
2014	1	calculation

4.2 Straight-Line Motion: Connecting Position, Velocity, and Acceleration

1 question • calculation

Source	Q	Type
2015	3	calculation

4.4 Introduction to Related Rates

2 questions • calculation x2

Source	Q	Type
2022	4	calculation
2018	4	calculation

4.5 Solving Related Rates Problems

9 questions • calculation x9

Source	Q	Type
2025	2	calculation
2022	4	calculation
2019	4	calculation
2018	4	calculation
2018	5	calculation
2017	1	calculation
2016	5	calculation
2014	2	calculation
2014	4	calculation

4.6 Approximating Values of a Function Using Local Linearity and Linearization

5 questions • calculation x5

Source	Q	Type
2026	3	calculation
2023	3	calculation
2017	4	calculation
2015	5	calculation
2014	1	calculation

4.7 Using L'Hospital's Rule for Determining Limits of Indeterminate Forms

4 questions • calculation x4

Source	Q	Type
2023	4	calculation
2021	4	calculation
2019	3	calculation
2016	4	calculation

5.1 Using the Mean Value Theorem

3 questions • calculation x3

Source	Q	Type
2023	1	calculation
2021	4	calculation
2018	4	calculation

5.2 Extreme Value Theorem, Global Versus Local Extrema, and Critical Points

5 questions • calculation x5

Source	Q	Type
2026	2	calculation
2024	4	calculation
2021	3	calculation
2017	5	calculation
2015	5	calculation

5.3 Determining Intervals on Which a Function Is Increasing or Decreasing

7 questions • calculation x7

Source	Q	Type
2026	4	calculation
2022	1	calculation
2022	3	calculation
2017	2	calculation
2017	3	calculation
2016	1	calculation
2014	3	calculation

5.4 Using the First Derivative Test to Determine Relative (Local) Extrema

8 questions • calculation x8

Source	Q	Type
2024	3	calculation
2023	4	calculation
2022	1	calculation
2017	5	calculation
2016	3	calculation
2016	4	calculation
2015	4	calculation
2015	5	calculation

5.5 Using the Candidates Test to Determine Absolute (Global) Extrema

11 questions • calculation x11

Source	Q	Type
2026	4	calculation
2025	1	calculation
2025	4	calculation
2023	4	calculation
2022	3	calculation
2019	1	calculation
2019	3	calculation
2018	1	calculation
2017	3	calculation
2016	3	calculation
2015	1	calculation

5.6 Determining Concavity of Functions over Their Domains

12 questions • calculation x12

Source	Q	Type
2026	3	calculation
2026	4	calculation
2025	4	calculation
2024	1	calculation
2023	3	calculation
2023	4	calculation
2022	3	calculation
2021	4	calculation
2019	1	calculation
2019	4	calculation
2018	3	calculation
2017	1	calculation

5.7 Using the Second Derivative Test to Determine Extrema

3 questions • calculation x3

Source	Q	Type
2026	2	calculation
2023	4	calculation
2016	4	calculation

5.9 Connecting a Function, Its First Derivative, and Its Second Derivative

2 questions • calculation x2

Source	Q	Type
2018	3	calculation
2016	3	calculation

5.10 Introduction to Optimization Problems

1 question • calculation

Source	Q	Type
2025	2	calculation

5.12 Exploring Behaviors of Implicit Relations

1 question • calculation

Source	Q	Type
2019	4	calculation

6.1 Exploring Accumulations of Change

2 questions • calculation x2

Source	Q	Type
2022	1	calculation
2018	1	calculation

6.2 Approximating Areas with Riemann Sums

11 questions • calculation x10, data response

Source	Q	Type
2026	1	calculation
2025	3	data response
2024	1	calculation
2023	1	calculation
2022	4	calculation
2021	1	calculation
2018	4	calculation
2017	1	calculation
2016	1	calculation
2015	3	calculation
2014	4	calculation

6.3 Riemann Sums, Summation Notation, and Definite Integral Notation

1 question • calculation

Source	Q	Type
2026	1	calculation

6.4 The Fundamental Theorem of Calculus and Accumulation Functions

11 questions • calculation x11

Source	Q	Type
2025	1	calculation
2024	4	calculation
2024	5	calculation
2023	2	calculation
2022	1	calculation
2022	3	calculation
2021	4	calculation
2019	3	calculation
2019	6	calculation
2018	1	calculation
2014	3	calculation

6.5 Interpreting the Behavior of Accumulation Functions Involving Area

2 questions • calculation x2

Source	Q	Type
2026	1	calculation
2016	3	calculation

6.6 Applying Properties of Definite Integrals

3 questions • calculation x3

Source	Q	Type
2023	1	calculation
2019	3	calculation
2018	3	calculation

6.7 The Fundamental Theorem of Calculus and Definite Integrals

12 questions • calculation x12

Source	Q	Type
2026	1	calculation
2025	4	calculation
2024	1	calculation
2024	2	calculation
2024	4	calculation
2022	3	calculation
2022	5	calculation
2019	3	calculation
2018	3	calculation
2017	1	calculation
2017	3	calculation
2014	3	calculation

6.8 Finding Antiderivatives and Indefinite Integrals: Basic Rules and Notation

1 question • calculation

Source	Q	Type
2026	5	calculation

6.11 Integrating Using Integration by Parts

2 questions • calculation x2

Source	Q	Type
2024	5	calculation
2023	5	calculation

6.12 Integrating Using Linear Partial Fractions

3 questions • calculation x3

Source	Q	Type
2019	5	calculation
2017	5	calculation
2015	5	calculation

6.13 Evaluating Improper Integrals

6 questions • calculation x6

Source	Q	Type
2026	5	calculation
2023	5	calculation
2022	5	calculation
2019	5	calculation
2018	2	calculation
2017	5	calculation

7.2 Verifying Solutions for Differential Equations

1 question • calculation

Source	Q	Type
2015	4	calculation

7.3 Sketching Slope Fields

3 questions • calculation x3

Source	Q	Type
2024	3	calculation
2023	3	calculation
2015	4	calculation

7.4 Reasoning Using Slope Fields

2 questions • calculation x2

Source	Q	Type
2026	3	calculation
2024	3	calculation

7.5 Approximating Solutions Using Euler's Method

4 questions • calculation x4

Source	Q	Type
2025	5	calculation
2024	5	calculation
2021	5	calculation
2016	4	calculation

7.6 Finding General Solutions Using Separation of Variables

3 questions • calculation x3

Source	Q	Type
2023	3	calculation
2019	4	calculation
2017	4	calculation

7.7 Finding Particular Solutions Using Initial Conditions and Separation of Variables

6 questions • calculation x6

Source	Q	Type
2026	3	calculation
2024	3	calculation
2023	3	calculation
2021	5	calculation
2019	4	calculation
2017	4	calculation

8.1 Finding the Average Value of a Function on an Interval

12 questions • calculation x12

Source	Q	Type
2026	2	calculation
2025	1	calculation
2024	1	calculation
2023	1	calculation
2022	1	calculation
2021	1	calculation
2019	1	calculation
2019	2	calculation
2018	4	calculation
2017	2	calculation
2016	5	calculation
2015	3	calculation

8.2 Connecting Position, Velocity, and Acceleration of Functions Using Integrals

2 questions • calculation x2

Source	Q	Type
2015	3	calculation
2014	4	calculation

8.3 Using Accumulation Functions and Definite Integrals in Applied Contexts

7 questions • calculation x6, data response

Source	Q	Type
2026	1	calculation
2025	3	data response
2019	1	calculation
2018	1	calculation
2018	2	calculation
2016	1	calculation
2015	1	calculation

8.4 Finding the Area Between Curves Expressed as Functions of x

3 questions • calculation x3

Source	Q	Type
2023	5	calculation
2021	3	calculation
2014	5	calculation

8.7 Volumes with Cross Sections: Squares and Rectangles

1 question • calculation

Source	Q	Type
2022	5	calculation

8.9 Volume with Disc Method: Revolving Around the x- or y-Axis

4 questions • calculation x4

Source	Q	Type
2026	5	calculation
2022	5	calculation
2021	3	calculation
2016	5	calculation

8.11 Volume with Washer Method: Revolving Around the x- or y-Axis

1 question • calculation

Source	Q	Type
2026	5	calculation

8.12 Volume with Washer Method: Revolving Around Other Axes

1 question • calculation

Source	Q	Type
2014	5	calculation

8.13 The Arc Length of a Smooth, Planar Curve and Distance Traveled

3 questions • calculation x3

Source	Q	Type
2026	5	calculation
2024	5	calculation
2014	5	calculation

9.1 Defining and Differentiating Parametric Equations

3 questions • calculation x3

Source	Q	Type
2023	2	calculation
2022	2	calculation
2016	2	calculation

9.3 Finding Arc Lengths of Curves Given by Parametric Equations

5 questions • calculation x5

Source	Q	Type
2024	2	calculation
2023	2	calculation
2022	2	calculation
2021	2	calculation
2016	2	calculation

9.4 Defining and Differentiating Vector-Valued Functions

4 questions • calculation x4

Source	Q	Type
2023	2	calculation
2022	2	calculation
2021	2	calculation
2015	2	calculation

9.5 Integrating Vector-Valued Functions

2 questions • calculation x2

Source	Q	Type
2022	2	calculation
2015	2	calculation

9.6 Solving Motion Problems Using Parametric and Vector-Valued Functions

7 questions • calculation x7

Source	Q	Type
2024	2	calculation
2023	2	calculation
2022	2	calculation
2021	2	calculation
2018	2	calculation
2016	2	calculation
2015	2	calculation

9.7 Defining Polar Coordinates and Differentiating in Polar Form

6 questions • calculation x6

Source	Q	Type
2026	2	calculation
2025	2	calculation
2019	2	calculation
2018	5	calculation
2017	2	calculation
2014	2	calculation

9.8 Find the Area of a Polar Region or the Area Bounded by a Single Polar Curve

3 questions • calculation $x3$

Source	Q	Type
2026	2	calculation
2019	2	calculation
2017	2	calculation

9.9 Finding the Area of the Region Bounded by Two Polar Curves

5 questions • calculation $x5$

Source	Q	Type
2025	2	calculation
2019	2	calculation
2018	5	calculation
2017	2	calculation
2014	2	calculation

10.2 Working with Geometric Series

4 questions • calculation $x4$

Source	Q	Type
2026	6	calculation
2025	6	calculation
2022	6	calculation
2014	6	calculation

10.4 Integral Test for Convergence

2 questions • calculation $x2$

Source	Q	Type
2021	6	calculation
2017	5	calculation

10.6 Comparison Tests for Convergence

1 question • calculation

Source	Q	Type
2021	6	calculation

10.7 Alternating Series Test for Convergence

2 questions • proof, calculation

Source	Q	Type
2017	6	proof
2016	6	calculation

10.8 Ratio Test for Convergence

4 questions • calculation $x4$

Source	Q	Type
2025	6	calculation
2024	6	calculation
2022	6	calculation
2015	6	calculation

10.9 Determining Absolute or Conditional Convergence

2 questions • calculation, proof

Source	Q	Type
2021	6	calculation
2017	6	proof

10.10 Alternating Series Error Bound

8 questions • calculation $x7$, proof

Source	Q	Type
2026	6	calculation
2024	6	calculation
2022	6	calculation
2021	6	calculation
2019	6	calculation
2018	6	calculation
2017	6	proof
2016	6	calculation

10.11 Finding Taylor Polynomial Approximations of Functions

6 questions • calculation $x6$

Source	Q	Type
2025	5	calculation
2023	6	calculation
2021	5	calculation
2019	6	calculation
2016	6	calculation
2015	6	calculation

10.12 Lagrange Error Bound

3 questions • calculation x3

Source	Q	Type
2026	6	calculation
2025	5	calculation
2023	6	calculation

10.13 Radius and Interval of Convergence of Power Series

8 questions • calculation x8

Source	Q	Type
2025	6	calculation
2024	6	calculation
2022	6	calculation
2021	6	calculation
2018	6	calculation
2016	6	calculation
2015	6	calculation
2014	6	calculation

10.14 Finding Taylor or Maclaurin Series for a Function

9 questions • calculation x8, proof

Source	Q	Type
2026	6	calculation
2025	6	calculation
2024	6	calculation
2019	6	calculation
2018	6	calculation
2017	6	proof
2016	6	calculation
2015	6	calculation
2014	6	calculation

10.15 Representing Functions as Power Series

4 questions • calculation x3, proof

Source	Q	Type
2026	6	calculation
2022	6	calculation
2017	6	proof
2015	6	calculation