

AP Physics C: Mechanics

Past-Paper Exercise Sheets — Question Index

36 subtopics • 222 questions

1.2 Displacement, Velocity, and Acceleration

7 questions • calculation x7

Source	Q	Type
2019 Set 1	1	calculation
2019 Set 2	1	calculation
2019 Set 2	2	calculation
2018	1	calculation
2017	2	calculation
2015	1	calculation
2014	1	calculation

1.3 Representing Motion

5 questions • calculation x5

Source	Q	Type
2023 Set 2	1	calculation
2019 Set 1	1	calculation
2019 Set 2	2	calculation
2018	1	calculation
2015	1	calculation

1.5 Motion in Two or Three Dimensions

6 questions • calculation x6

Source	Q	Type
2026	2	calculation
2021 Set 2	3	calculation
2019 Set 1	2	calculation
2017	3	calculation
2015	2	calculation
2014	3	calculation

2.1 Systems and Center of Mass

5 questions • calculation x5

Source	Q	Type
2026	2	calculation
2024 Set 1	3	calculation
2021 Set 1	3	calculation
2021 Set 2	2	calculation
2018	2	calculation

2.2 Forces and Free-Body Diagrams

12 questions • calculation x12

Source	Q	Type
2024 Set 1	3	calculation
2024 Set 2	3	calculation
2023 Set 1	1	calculation
2023 Set 1	3	calculation
2022 Set 1	1	calculation
2022 Set 1	3	calculation
2022 Set 2	1	calculation
2022 Set 2	3	calculation
2021 Set 1	1	calculation
2021 Set 2	1	calculation
2021 Set 2	3	calculation
2019 Set 1	2	calculation

2.3 Newton's Third Law

2 questions • calculation x2

Source	Q	Type
2022 Set 1	2	calculation
2016	2	calculation

2.4 Newton's First Law

2 questions • calculation x2

Source	Q	Type
2019 Set 1	1	calculation
2019 Set 2	1	calculation

2.5 Newton's Second Law

12 questions • calculation x12

Source	Q	Type
2026	1	calculation
2024 Set 1	2	calculation
2023 Set 1	3	calculation
2023 Set 2	1	calculation
2022 Set 1	1	calculation
2022 Set 2	1	calculation
2021 Set 1	1	calculation
2021 Set 1	2	calculation
2021 Set 2	1	calculation
2021 Set 2	3	calculation
2019 Set 1	1	calculation
2019 Set 2	1	calculation

2.6 Gravitational Force

6 questions • calculation x6

Source	Q	Type
2025	3	calculation
2021 Set 1	1	calculation
2021 Set 2	1	calculation
2018	1	calculation
2017	1	calculation
2015	1	calculation

2.7 Kinetic and Static Friction

12 questions • calculation x11, data response

Source	Q	Type
2026	1	calculation
2026	3	data response
2025	2	calculation
2025	3	calculation
2025	4	calculation
2023 Set 1	3	calculation
2022 Set 1	1	calculation
2022 Set 2	1	calculation
2021 Set 2	1	calculation
2019 Set 2	1	calculation
2018	3	calculation
2017	1	calculation

2.8 Spring Forces

8 questions • calculation x7, data response

Source	Q	Type
2026	3	data response
2025	2	calculation
2024 Set 1	1	calculation
2024 Set 2	1	calculation
2023 Set 1	1	calculation
2022 Set 2	2	calculation
2016	2	calculation
2016	3	calculation

2.9 Resistive Forces

5 questions • calculation x5

Source	Q	Type
2026	1	calculation
2024 Set 1	2	calculation
2024 Set 2	2	calculation
2019 Set 1	1	calculation
2017	2	calculation

2.10 Circular Motion

6 questions • calculation x6

Source	Q	Type
2021 Set 1	2	calculation
2021 Set 2	3	calculation
2019 Set 1	2	calculation
2019 Set 2	3	calculation
2016	3	calculation
2014	2	calculation

3.1 Translational Kinetic Energy

3 questions • calculation x3

Source	Q	Type
2024 Set 1	1	calculation
2019 Set 2	2	calculation
2016	2	calculation

3.2 Work

4 questions • calculation x4

Source	Q	Type
2024 Set 1	1	calculation
2023 Set 1	1	calculation
2022 Set 1	1	calculation
2022 Set 2	1	calculation

3.3 Potential Energy

7 questions • calculation x7

Source	Q	Type
2025	2	calculation
2021 Set 1	2	calculation
2019 Set 1	2	calculation
2019 Set 2	2	calculation
2018	2	calculation
2017	2	calculation
2014	1	calculation

3.4 Conservation of Energy

12 questions • calculation x11, data response

Source	Q	Type
2026	3	data response
2025	2	calculation
2025	3	calculation
2024 Set 1	1	calculation
2024 Set 2	1	calculation
2023 Set 1	1	calculation
2023 Set 1	3	calculation
2022 Set 1	2	calculation
2022 Set 2	1	calculation
2021 Set 1	2	calculation
2021 Set 2	2	calculation
2021 Set 2	3	calculation

4.1 Linear Momentum

5 questions • calculation x5

Source	Q	Type
2026	2	calculation
2025	1	calculation
2024 Set 2	1	calculation
2022 Set 1	2	calculation
2022 Set 2	2	calculation

4.2 Change in Momentum and Impulse

7 questions • calculation x7

Source	Q	Type
2025	1	calculation
2023 Set 2	1	calculation
2022 Set 1	2	calculation
2022 Set 2	2	calculation
2019 Set 2	2	calculation
2018	2	calculation
2014	1	calculation

4.3 Conservation of Linear Momentum

11 questions • calculation x11

Source	Q	Type
2026	2	calculation
2025	1	calculation
2024 Set 1	1	calculation
2023 Set 1	1	calculation
2023 Set 2	1	calculation
2022 Set 1	2	calculation
2022 Set 2	2	calculation
2019 Set 1	2	calculation
2018	2	calculation
2016	2	calculation
2014	3	calculation

4.4 Elastic and Inelastic Collisions

7 questions • calculation x7

Source	Q	Type
2025	1	calculation
2024 Set 1	1	calculation
2022 Set 1	2	calculation
2019 Set 1	2	calculation
2018	2	calculation
2016	2	calculation
2015	2	calculation

5.1 Rotational Kinematics

4 questions • calculation x4

Source	Q	Type
2023 Set 2	3	calculation
2022 Set 1	3	calculation
2022 Set 2	3	calculation
2021 Set 2	2	calculation

5.2 Connecting Linear and Rotational Motion

4 questions • calculation x4

Source	Q	Type
2021 Set 1	3	calculation
2019 Set 1	3	calculation
2017	3	calculation
2015	3	calculation

5.3 Torque

8 questions • calculation x8

Source	Q	Type
2024 Set 1	3	calculation
2024 Set 2	3	calculation
2023 Set 1	3	calculation
2022 Set 1	3	calculation
2022 Set 2	3	calculation
2021 Set 1	3	calculation
2021 Set 2	2	calculation
2019 Set 1	3	calculation

5.4 Rotational Inertia

12 questions • calculation x12

Source	Q	Type
2024 Set 1	3	calculation
2024 Set 2	3	calculation
2023 Set 1	2	calculation
2023 Set 2	3	calculation
2022 Set 2	3	calculation
2021 Set 1	3	calculation
2021 Set 2	2	calculation
2019 Set 1	3	calculation
2019 Set 2	3	calculation
2018	3	calculation
2016	3	calculation
2015	3	calculation

5.5 Rotational Equilibrium and Newton's First Law in Rotational Form

4 questions • calculation x4

Source	Q	Type
2024 Set 1	3	calculation
2024 Set 2	3	calculation
2022 Set 1	3	calculation
2022 Set 2	3	calculation

5.6 Newton's Second Law in Rotational Form

10 questions • calculation x10

Source	Q	Type
2025	4	calculation
2024 Set 2	3	calculation
2023 Set 1	3	calculation
2023 Set 2	3	calculation
2022 Set 1	3	calculation
2022 Set 2	3	calculation
2021 Set 1	3	calculation
2021 Set 2	2	calculation
2019 Set 1	3	calculation
2018	3	calculation

6.1 Rotational Kinetic Energy

9 questions • calculation x9

Source	Q	Type
2026	4	calculation
2023 Set 1	3	calculation
2023 Set 2	3	calculation
2021 Set 1	3	calculation
2021 Set 2	2	calculation
2019 Set 1	3	calculation
2018	3	calculation
2017	3	calculation
2015	3	calculation

6.2 Torque and Work

2 questions • calculation x2

Source	Q	Type
2026	4	calculation
2016	3	calculation

6.3 Angular Momentum and Angular Impulse

2 questions • calculation x2

Source	Q	Type
2018	3	calculation
2016	3	calculation

6.4 Conservation of Angular Momentum

4 questions • calculation x4

Source	Q	Type
2023 Set 1	3	calculation
2019 Set 1	3	calculation
2016	3	calculation
2014	3	calculation

6.5 Rolling

6 questions • calculation x6

Source	Q	Type
2026	4	calculation
2025	4	calculation
2023 Set 1	3	calculation
2019 Set 2	3	calculation
2018	3	calculation
2017	3	calculation

7.1 Defining Simple Harmonic Motion (SHM)

2 questions • calculation x2

Source	Q	Type
2017	2	calculation
2016	2	calculation

7.2 Frequency and Period of SHM

5 questions • calculation x5

Source	Q	Type
2024 Set 1	1	calculation
2024 Set 2	1	calculation
2023 Set 1	2	calculation
2023 Set 2	2	calculation
2017	2	calculation

7.4 Energy of Simple Harmonic Oscillators

3 questions • calculation x3

Source	Q	Type
2025	2	calculation
2023 Set 1	2	calculation
2023 Set 2	2	calculation

7.5 Simple and Physical Pendulums

3 questions • calculation x3

Source	Q	Type
2024 Set 1	1	calculation
2019 Set 1	2	calculation
2015	2	calculation