📘 How to Use This AI generated Prompt Set with AI

1. **Copy the entire prompt** into a new chat.

2. The AI will generate **3 AP-style practice problems** with multiple parts.

3. By default, it will show you only the **final answers** (no worked-out solutions).

4. After attempting the problems yourself, type:

   “Show me the correct answers and reasoning.”
   to see full explanations and step-by-step solutions.

✅ This mirrors AP exam practice: first you work independently, then you check your reasoning against official-style solutions. Ask questions as they come up.

1.1:

“Provide me with 3 AP-style practice problems on [insert topic]. Each problem should:

Include multiple parts (a), (b), (c).

Be written at AP Physics 1/ C rigor (as appropriate).

Focus on conceptual depth, not just plug-and-chug.

Require students to compare scalar and vector quantities when relevant (e.g., distance vs. displacement, speed vs. velocity).

Involve at least one representation translation (graph, sketch, or vector diagram).

End with a Correctness Checklist summarizing what must be included in a correct answer.

Conclude with: ‘When you are ready to check yourself, ask: “Show me the correct answers and reasoning.”’

Ensure the difficulty and style align with free-response questions from the AP Physics Course and Exam Description.”

1.2 -

For more practice, use the AI Prompt:

"Create 3 AP Physics 1–level practice problems involving motion graphs (position–time, velocity–time, and acceleration–time) based on a humorous real-world or imaginary scenario. Each problem must require a deep understanding of kinematics, not just surface-level recognition. Vary the problems to include a mix of free-response command terms such as ***sketch****,* ***calculate****,* ***determine****,* ***justify****,* ***derive****, or* ***explain****."*

Additional Requirements for the Problems:

- Scenarios should be funny, creative, or whimsical (e.g., astronauts with pogo sticks, penguins on skateboards, elevators gone rogue).
- At least one problem should involve constant acceleration, one with changing acceleration, and one with piecewise motion.
- Each problem must integrate multiple representations (verbal description → graph → mathematical model).
- Questions should push students to make inferences about slopes, areas, and relationships between graphs (e.g., "Sketch the velocity–time graph given this position–time graph and justify your reasoning").

When you are ready to check your answers, use the prompt:

"Show me what the correct position, velocity, and acceleration graphs would look like, with reasoning for each."

1.3:

Provide me with 3 AP-style practice problems that require students to translate motion into different frames of reference.

- At least one problem should involve motion in **one dimension** and at least one in **two dimensions**.
- Each problem must have multiple parts (a), (b), (c).
- Problems should require conceptual reasoning about relative velocity, displacement, and observations from different observers.
- At least one problem must include a **diagram or graph interpretation**.
- End with a Correctness Checklist summarizing what a complete answer must include.
- Conclude with: ‘When you are ready to check yourself, ask: “Show me the correct answers and reasoning.”’

Ensure the style and difficulty align with free-response questions from the AP Physics Course and Exam Description.”