



2026 VCHS $F = ma$ Physics Competition

OFFICIAL CONTEST RULES

Please read this document carefully before the day of the contest.

Scoring and Format

- This test has 25 multiple-choice questions, each with 5 answer choices, to be solved in 75 minutes.
- As per the standard $F = ma$ scope, problems on this exam may cover kinematics, statics, Newton's laws, momentum and energy, oscillations, orbital mechanics, fluids, and elementary data analysis. All problems can be solved without the use of calculus, though some may have shorter calculus-based solutions.
- You will receive one point for each correct answer, and zero points for each incorrect or blank answer.
- There is no additional penalty for incorrect answers.
- All answers must be recorded in the designated Google Form.
- At 10:15 AM Pacific Time, you will receive the link to the test PDF and the link to the Google Form for answer submissions in the Zoom chat.

Tiebreaker

- If ties occur between the prize winners, the following procedure will be used:
- After the exam, the solve rate as a percentage will be calculated for each problem. Each of the problems will then be given a rating from 1 to 25 corresponding to its difficulty, with 1 corresponding to the most frequently solved problem and 25 corresponding to the least frequently solved problem.
- The contestant with the highest rated solved problem wins the tiebreaker. If both contestants have the same highest rated solved problem, the contestant with the second highest rated solved problem wins the tiebreaker. If both contestants have the same second highest rated solved problem, we will continue this analysis (3rd, 4th, etc.) until the tie is broken.
- In the extremely unlikely case that the contestants have the exact same distribution of problems solved, the contestants will tie and split the sum of the winnings.

Testing Rules

- All participants must have their videos on, positioned so that their hands and workspace are visible throughout the entire 75-minute testing period. Anyone suspected of cheating will be disqualified.

- All participants must submit the Google Form before the 75-minute time limit ends. No late submissions will be considered for prizes, and no extra time will be given to complete the Google Form. We highly recommend that you record your answers on the Google Form while you progress through the exam as opposed to trying to record everything in the last few minutes.
- You may only use a hand-held calculator (Desmos, Wolfram Alpha, or any other online calculators are not allowed). Its memory must be cleared of data and programs. You may use only the basic functions found on a simple scientific calculator. Calculators may not be shared. You may not use any external references, such as books or formula sheets. You may not use any Artificial Intelligence or LLM including but not limited to ChatGPT, Gemini, Grok, Deepseek, or Claude during the 75-minute testing window.

Interview

- To combat common cheating methods, we will require post-contest interviews with all prize winners.
- During the interview period, contestants placing in or near the top ten will be called into breakout rooms for interviews with VCHS Physics Club officers.
- Each interview will take approximately 5 minutes. We estimate that all interviews will be completed within 45 minutes (11:45 AM - 12:30 PM Pacific Time). Once a contestant passes the interview, they are free to leave the Zoom room.
- We will prioritize contestants who have time conflicts and need to leave earlier within the interview window first. If a contestant cannot attend the interview, they will be disqualified from winning prizes.
- Contestants must attend and pass the short post-contest interview to be eligible for prizes.
- At this time, we will not release the questions that will be asked or details of what will occur in the interview, but we guarantee that all legitimate prize winners will easily pass the interview.
- Contestants who do not pass the interview will be disqualified.

Prizes

Place	Prize
1st	\$200 + \$25 AoPS gift card
2nd	\$125 + \$25 AoPS gift card
3rd	\$75 + \$25 AoPS gift card
4th–5th	\$50 each
6th–10th	\$25 each
Bonus raffle	One remaining \$25 AoPS gift card
Total pool	\$725

- All prize winners must pass the post-contest interview.

This event is independent and not affiliated with, endorsed by, or sponsored by AAPT or the US Physics Team.