

# Contest Rules

## for CMIMC, HMMT, and PUMaC

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A basic rundown of the rules. The official lists can be found [here](#) for CMIMC, [here](#) for HMMT, and [here](#) for PUMaC. The rules marked with 🦋 are related to online testing.

### 1 CMIMC

- TCS Round
  - Proof
  - 90 minutes
  - 3 problems
  - Done with team
- Team Round
  - Short answer
  - 60 minutes
  - 15 problems
- Individual Rounds
  - Short answer
  - 60 minutes
  - 8 problems
  - Three rounds: algebra & NT, combinatorics & CS, and geometry
  - Two divisions: 1 (harder) and 2 (easier)
- Submitting
  - You are given some time to submit at the end
  - 🦋 For TCS submit a PDF to a Google form (i.e. solutions are required)
  - 🦋 For Team and Individual submit on the website
- Proctoring
  - 🦋 Stay muted
  - 🦋 Turn your camera on
  - 🦋 No computational tools (e.g. calculators)

## 2 HMMT

- Guts Round
  - Short answer
  - 80 minutes
  - 36 problems, given in sets of 3 in **November** and 4 in **February** (after completing a set you turn it in to receive the next one)
  - Done with team
- Team Round
  - Short answer
  - 60 minutes
  - 10 problems
  - **November** is *short-answer*
  - **February** is *proof*
- Individual Round
  - Short answer
  - 50 minutes
  - 10 problems
  - **November** has two rounds: general and theme
  - **February** has three rounds: algebra & NT, geometry, and combinatorics
- Submitting
  - Everything must be handwritten (in particular, do not type or  $\text{\LaTeX}$ )
  -  Use website to submit everything
  -  Don't forget to save your answers; otherwise the website won't record them
  -  Scratch work must be uploaded (for each question submit an image/PDF of your answer and work for that question)<sup>1</sup>
- Proctoring
  -  You must join a Zoom meeting for all rounds and events
  -  Cameras must be on and do **not** use virtual backgrounds

## 3 PUMaC

- Power Round
  - Proof
  - 1 week
  - # of problems varies; includes several parts
  - Done with team

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<sup>1</sup>Download something like TinyScanner or CamScanner to easily take pictures with.

- You can use question  $a$  to prove question  $b$  if  $a < b$ , but (to my knowledge) not vice versa
- Individual Round
  - Short answer
  - 60 minutes
  - 8 problems
  - Four rounds: algebra, combinatorics, geometry, and NT (each contestant chooses 2)
  - Two divisions: A (harder) and B (easier)
- Team Round
  - Short answer
  - 30 minutes (sometimes varies)
  - # of problems varies
  - There is a “game” component in which teams have the opportunity to increase their score (see previous tests)
- Individual Finals
  - Proof
  - 90 minutes
  - 3 problems
  - Only top 10 individuals in each test and each division take this test
- Live Round
  - Literally just a random set of problems with everyone doing the test at the same time (similar to Guts)
  - Done with team

*Remark 1.* I have no idea how submissions/proctoring will be done at PUMaC; someone please let me know.