



**Chicago Junior Mathematics League  
Video Contest – Meet 2  
2018-2019**

**Guidelines:**

- Students from each grade level (6, 7, 8) from your school may submit up to two videos on the given problem. Each video submitted must be produced by different students, but must all be from the appropriate grade level. For examples, if your school decides to submit two sixth grade videos, there should be different sixth graders in each video.
- Each video should be no more than **FOUR** minutes in length.
- The problems are to be solved and the videos produced by student groups. The bulk of the work should be done by students. A parent or teacher holding a camera is fine, but solving a problem for the students is not.
- Videos must be produced by a group of at least two students, and at most five students. Each participating student's contribution should be made evident either from an appearance in the video or a credit at the beginning or end of the video. Indicate names of all students involved (maximum of 5) in credits or introductions of the video.
- Points will be awarded as follows.
  - Videos will be ranked by **correctness of solution, thoroughness of explanation, and creativity**. The top videos will earn 5, 4, 3, 2, or 1 points each, respectively, for placing in the top five. The producers of the top 5 videos will also receive prizes in addition to the team winning points.
  - Creative solutions and presentations are encouraged, but correct math outweighs all. Please make the focus of your video the mathematics. If you have a creative context, that is great to see, but it should not be the focus of your video. Soundtracks should not distract or interfere with the explanation of the solution.

**Submission:**

- Coaches should select the best two videos for each grade level to submit for judging.
- Coaches should upload videos to Google Drive and share access with Julienne Au (jau@cps.edu) and Chris Barrett (cbarrett@cps.edu).
- Please use the following naming conventions for the videos:  
school\_grade\_teamnumber\_contestnumber\_year.  
For example, a submission for CJML Contest 2 for the seventh grade team from Healy in the 2016–2017 school year should be named as follows: healy\_7\_team1\_contest2\_1617.
- All submissions must be shared by **5:00pm on Monday, December 3, 2018**.

Please direct any questions about the contest to Julienne Au (jau@cps.edu) and Chris Barrett (cbarrett@cps.edu). Coaches who are interested in helping judge the submissions should email Julienne Au (jau@cps.edu) and Chris Barrett (cbarrett@cps.edu) by the submission deadline. **GOOD LUCK!**

**PROBLEMS:**

**6<sup>th</sup> Grade problem:** How many positive integer factors of  $100!$  are multiples of 2 or 3?

---

**7<sup>th</sup> Grade problem:** How many positive integer factors of  $100!$  are perfect squares or perfect cubes?

---

**8<sup>th</sup> Grade problem:** In the expanded form of  $100!$ , what are the first two nonzero digits to the left of the decimal point?