



2020 $F = ma$ Contest Results

In 2020 there were two $F = ma$ exams administered. The data from the exams are in the table below.

Exam	A* (Jan 23)	B (Jan 28)
Number of scored exams	3205	3419
Minimum score	1	0
Maximum score	25	25
Median score	8	8
Average score	9.09	8.49
Standard deviation	4.21	3.93

* In Exam A,

1. Problem 14 had a typo. All answer choices were marked as correct.
2. Problem 21 answer choices (B) and (C) are both correct, as they are mathematically equivalent.

In order to meet the goal of selecting the top students, of which approximately 400 are invited to take the USAPhO exam, the minimum scores necessary to get an invitation to sit the 2020 USAPhO will be:

- A score of 16 for Exam A (Jan23);
- A score of 16 for Exam B (Jan28).