



Knights of Pi Math Tournament – December 12,  
2015

## Block Math Scoring

This year, we are adding a new format, the Block Math Test. This test is taken individually, yet counts for both the Individual Score and the Team Score.

The format is as follows: there are 15 problems total, each being split into five blocks of three problems. (Block 1: #1, 2, 3; Block 2: #4, 5, 6; etc.). The problems within a single block are around the same difficulty, and encompass different subjects of math (Algebra/Number Theory/Combinatorics/Geometry). Furthermore, the blocks are in increasing difficulty: Block 1 being the easiest, Block 2 being the next easiest, and so on.

One's score for this test is (# of problems correct) \* multiplier, where the multiplier is decided as follows:

The "highest level" is the number of the highest block of which the competitor has solved at least two out of the three problems. For example, if a student solved #1,2,3,4,5,6,7,8, then the highest level is 3, because the competitor solved #7,8 of Block 3. Similarly, if that student had solved #1, 4, 5, 6, 7, 8, the highest level still be 3.

Finally, the highest level determines the multiplier using this table:

Highest level:	0	1	2	3	4	5
Multiplier:	1	1.5	2	2.5	3	4

Thus, the maximum score is 60; if someone solves all problems, they have a multiplier of 4, and  $15 \cdot 4 = 60$ . For team scoring, this score is averaged out across team members and added to the overall team score. For individual scoring, this score is divided by 3 and added to the individual test score.

Thanks for your interest in KPMT, and email [kpmt@newportmathclub.org](mailto:kpmt@newportmathclub.org) for any more questions!

Sincerely,  
The KPMT Team