

MATHCOUNTS[®] Problem of the Week Archive

MATHCOUNTS Competition Season Approaches – January 29, 2024

Problems

The Sprint Round of the MATHCOUNTS Chapter Competition has 30 questions and students are given 40 minutes to complete the round. Though it isn't expected that most students will finish all 40 questions, what is the average time a student can spend on each of the 30 questions, in minutes:seconds per question?

Some chapters will hold a Countdown Round for the highest-scoring 25% of the students at the competition or the top 10 students at the competition, whichever is fewer students. What is the greatest number of students at a competition for which "25% of the students (to the nearest whole number)" is fewer students than "the top 10 students?"

MATHCOUNTS competitions are very different from tests students take in class. For a MATHCOUNTS competition, a score of 23 out of 46 (or 50%) is absolutely fantastic! The Target Round of a MATHCOUNTS competition has four pairs of problems. If we're told that a student answered exactly half of the Target Round questions correctly, and answered one question in each of the pairs of questions correctly, how many different combinations of questions could she have answered correctly? (One combination is questions #1, 3, 5 and 7.)