Scoring

Individual scores are calculated by taking the sum of the Sprint Round number correct (30 questions) and twice the number correct in the Target Round (8 questions). The maximum possible individual score is $30 + 2 \times 8 = 46$.

Team scores are calculated by dividing the sum of the team members' Individual Scores by four (even if the team has less than four members) and adding twice the number correct in the Team Round (10 questions). The maximum possible team score is $(46 + 46 + 46 + 46)/4 + 2 \times 10 = 66$.

Tiebreaker algorithms are used for whenever two individual scores or two team scores are the same. For individuals, the student with the higher Sprint score is ranked higher. If there is still a tie, then the higher Target question 7 & 8 score, if still tied, then the higher Target question 5 & 6 score, if still tied, then the higher Target question 3 & 4 score, if still tied, then the higher Target question 1 & 2 score. If still tied after that, then portions Sprint Round would be taken, a page at a time, starting from the end. [By that time, we would be checking whether they cheated by copying.]

For Team ties, the team with the higher Team Round score is ranked higher. If still tied, then the team with the higher sum of the team members' Sprint Round scores is ranked higher. After that, comparisons of specific Team Round questions, starting from the end (question 10), will determine the higher ranking team.

The graders will not have to go through hand checks of tie breaking, because an overall ranking index can be computed that includes the tie break criteria, by taking advantage of base 3. For the individual scoring, this index can be taken as 3000(Individual score) + 81(Sprint Round score) + 27(Target 7&8) + 9(Target 5&6) + 3(Target 3&4) + (Target 1&2). An Excel spreadsheet calculates this index, so that a single sort gives the ranking of everyone in the competition.