



Administration



MANDELBROT TEAM PLAY

**Overview** The Team Play contest consists of a series of six questions based on a single theme, usually building up to one major result. Students work together in groups of four to prepare written responses (proofs) to each part. Calculators, texts, and notes are not allowed on the Team Play, but students may use ruler, compass, or graph paper. To provide adequate time for writing solutions contestants are allowed to spend up to one hour on the Team Play. Each part is worth 4 or 5 points for a total of 28 points. The graders award partial credit, so students should summarize any progress towards a solution they have made. Please consult the FAQ page at the web site for more detailed information.

**Team composition** Each round the coordinator chooses groups of four students to officially work on the contest, one group for each team registered by the school. Team composition may vary from round to round and can involve fewer than four students in case of absences. We invite proctors to also create alternate groups if there are other interested students. These groups may work on the Team Play at the same time as the official foursomes, but their papers should be evaluated by the proctor rather than being mailed in.

**Preparation** We ask coordinators to provide those students taking the Team Play with a copy of the tips and topics forms so that they can familiarize themselves with the contest format and work on the practice problems ahead of time. (Practice sessions are even better!) Shortly before the contest, prepare the following for each team: four copies of the Team Play test, six copies of the response sheet, and extra blank white paper for scrap work.

**Contest procedure** Allow approximately 70 minutes to conduct the Team Play contest. (Proctors may shorten this time period if necessary.) All groups must take the contest on the same day, preferably at the same time. Distribute the response sheets and scrap paper and have the students write their team code and circle the appropriate round number on each sheet. (They may fill in the part number as they write out their responses.) The team code consists of the school's four-letter code followed by a single digit, depending on the number of teams the school has registered. For instance, a school with code JUMP having a single team would write JUMP1. If the same school were to field three teams, they would write either JUMP1, JUMP2, or JUMP3. Remind students to use a separate response sheet for each part and to limit their proofs to a single sheet, front and back. Then hand out the contest and instruct students to begin work.

At the conclusion of the 60 minute time period collect the students' work, up to six response sheets if the team has made progress on every part. Then make a copy of their proofs before mailing the originals to Greater Testing Concepts. Sort the papers with paper clips or blank sheets if you wish, *but please do not staple the response sheets*. You may share solutions with your teams once they have been posted online following the contest window.

Thanks for taking the time to involve your students in the Mandelbrot Team Play. We hope that they have a stimulating and educational experience.