



Administration

THE MANDELBROT TEAM PLAY

Overview Each Team Play 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.

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 create alternate groups if there are other interested students. These groups may work on the Team Play at the same time, but their papers should be evaluated at the school rather than being mailed in.

Preparation We ask coordinators to provide those students taking the Team Play with a copy of the Team Play Tips form early on so that they can read about the contest format. We also encourage coordinators to alert participating students prior to each round to the presence of practice problems available on the Forms page at the web site, so that they can familiarize themselves with the topics for each round and prepare for the contest by trying out the questions. Group practice sessions are even better!

On Thursday of the week preceding each scheduled contest window a test download link will become available; this date falls on December 29 for Round One. To access the link, login to your Mandelbrot account as usual, click on the “Contest Materials” menu tab at the top of the page, then select the desired document to download. The remaining documents needed for the Team Play are all located on the Forms page. A day or two before students will work on the questions the coordinator should 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. Write the appropriate team code and circle the round number on each student response sheet, then distribute the response sheets and scrap paper. (Students 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 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 questions 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. Collate the papers by team, so that there is one set of responses per team. It is not really necessary to use paper clips or blank sheets, *and please do not staple the response sheets*. Solutions become available for download on Thursday during the second week of the contest window. After this point you may share solutions with your students once they complete their work on the Team Play questions.

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