INTEGRATION BEE

Mathematics Club

4 September 2024

Round 1: Bee-ginning Buzz

1. Participants must compete in teams of 2. Anyone who does not have a teammate will be assigned one.
2. You will be given 45 minutes to solve the paper consisting of 20 questions.
3. Any use of online resources is prohibited.
4. Use of calculators (excluding programming) is allowed.

Round 2: Bee Quick

1. 32 teams from the previous round will be qualified to Round 2.
2. In this round, a total of 8 questions will be asked. This is a buzzer round (yes, we have special buzzers ready).
3. For each of the first three questions, the first 4 teams to answer will be qualified. Thus, out of the 32 teams, 12 teams will qualify further.
4. For the next 3 questions, 2 of the first teams to answer it will be qualified. Hence this boils it down to 6 teams remaining.
5. **Wildcard:** At this point, a wildcard question will be asked and anyone in the audience, including the teams who were initially qualified to Round 2 can answer it. The first two teams to answer this will be qualified further.
6. We now have 8 teams. One last question will be asked, and the first 4 teams to answer it will be qualified to the next Round.

Round 3: Bee Brawl

1. We now have 4 qualifying teams. Each team will take take turns and compete with an opponent team to solve the given question on the board.
2. Being the first to solve gives the team 1 point.
3. At the end of this, the top 2 teams will be qualified to the final Round.

Round 4: Bee-trayal

1. This will be the final round, with just 2 teams remaining to compete against each other.
2. The format of this round is a surprise! But we'll give you a hint: Prisoner's dilemma. The prisoner's dilemma is a game theory thought experiment that involves two rational agents, each of whom can cooperate for mutual benefit or betray their partner for individual reward.
3. The winners of this round will be crowned the title of *Grand Integrator*.

GOOD LUCK BEES