

## OVERVIEW

Participants will demonstrate their knowledge of computer science and coding concepts (e.g., language syntax, data structures, control flow, object oriented programming, etc.) by taking a test. Applying leadership and 21<sup>st</sup> century skills, semifinalists participate in an on-site programming challenge. Specific requirements, such as the programming language, are posted on the [TSA website](#) under *Themes & Problems*. Completed solutions are objectively measured to determine the best and most effective solution for the stated problem.

## ELIGIBILITY

One (1) team of two (2) individuals per chapter may participate.

## TIME LIMITS

### PRELIMINARY ROUND

- A. One (1) hour is allowed for the test. Both members must be present at the same time and take the test individually.

### SEMIFINAL ROUND

- A. Two (2) hours are allowed for the on-site challenge.

## ATTIRE

TSA competition attire is required.

## PROCEDURE

### PRE-CONFERENCE

- A. Participants review the TSA Honor Statement for Competitive Events found in the General Rules and listed in the individual competitive event rules.

### PRELIMINARY ROUND

- A. Participants report at the time and place stated in the conference program for the test.
- B. Both team members take the test simultaneously.
- C. A list of twelve (12) semifinalist teams (in random order) is posted.

## SEMIFINAL ROUND

- A. Participants bring their own computer systems to the event area at the time and place stated in the conference program.
- B. Participants are given a problem, evaluation criteria, materials, and allotted two (2) hours for the design and development of the solution.
- C. Each solution is tested and presented to the judges as soon as completed.
- D. Ten (10) finalists are announced during the conference awards ceremony.

## REGULATIONS AND REQUIREMENTS

Students will work to develop their leadership and 21<sup>st</sup> century skills in the process of preparing for and participating in this TSA competitive event. The development and application of those skills must be evident in their submission, demonstration, and/or communication pertaining to the entry.

### PRELIMINARY ROUND

- A. Team members take the test individually.
- B. Tests will be administered online only. Written (paper) tests will not be used unless deemed necessary prior to, or on-site at the national conference. Online testing will require each member to provide a laptop, and all members must take the test online. Please review the [National TSA Conference Competition Requirements](#).
- C. Participants are responsible for bringing two (2) sharpened No.2 pencils to the test site.
- D. In the event the test must be administered using a hard copy and scantron:
  1. Student identification numbers must be entered on the scantron form in the space indicated.
  2. Participants must stop work immediately when time is called.
  3. Should a participant complete the test before the time allocated is over, the participant will submit the test and scantron form to the coordinator without any form of communication with any other member. Failure to do so results in disqualification of the participant.

4. All tests and scantrons must be turned in before leaving the test area.
- E. The average of the test scores of the two (2) team members determines team ranking.
- F. These same two (2) team members compete in the semifinal round, should the team qualify.

### **SEMIFINAL ROUND**

- A. Participants respond to a design challenge consisting of a series of coding problems that must be completed on-site at the conference within a two (2)-hour time frame.
- B. All work must be completed in the event area during the time specified for the event.
- C. Participants are required to bring:
  1. One (1) laptop. Laptop must be fully charged with enough battery for the duration of the semifinal round.
  2. One (1) computer mouse (if desired).
  3. Pencils and/or pens.
  4. Notebook paper or copier paper.
  5. Portable power bank (if desired).
- D. Participants do NOT have access to electrical power/ outlets during the event.
- E. Participants do NOT have access to the Internet during the event. The use of hot spots is not permitted.
- F. Participants must have all software development tools needed for the competition downloaded and accessible on their computers.
- G. All solutions must be tested, demonstrated and presented by participants in front of the judges.
- H. Participants may NOT use any generative artificial intelligence (AI) tools (e.g. ChatGPT, Google Gemini, GitHub Copilot, etc.) in developing their solution(s).

### **EVALUATION**

#### **PRELIMINARY ROUND**

- A. Each team's averaged test score

### **SEMIFINAL ROUND**

- A. The solution to the on-site problem
  1. Each problem in the programming challenge will have an objective correct answer.

### **STEM INTEGRATION**

Depending upon the subject of the problem, this event has connections to one (1) or more of the STEM areas of Science, Technology, Engineering, and Mathematics.

### **TSA HONOR STATEMENT**

All work must be created and completed by individual competitors or teams. Plagiarism, the use of Generative Artificial Intelligence (GenAI) software, copyright violation, cheating, and falsification of information are prohibited. Participants may NOT use any generative artificial intelligence (GenAI) tools (e.g. ChatGPT, Google Gemini, GitHub Copilot, etc.). Any attempt to gain an unfair advantage will not be tolerated. Competitors at any level of TSA competition understand and agree to abide by the TSA Honor Statement.

If it is determined that a student violated the TSA Honor Statement, a rules violation of twenty percent (20%) will be incurred.

### **LEADERSHIP AND 21<sup>ST</sup> CENTURY SKILLS**

This event provides opportunity for students to build and develop leadership and 21<sup>st</sup> century skills including but not limited to – Communication, Collaboration/Social Skills, Initiative, Problem Solving/Risk Taking, Critical Thinking, Perseverance/Grit, Creativity, Relationship Building/Teamwork, Dependability/Integrity, and Flexibility/Adaptability

### **CAREERS RELATED TO THIS EVENT**

This competition has connections to one (1) or more of the careers below:

- Computer software engineer
- Mathematician

Participant/Team ID# \_\_\_\_\_

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## 2026 & 2027 OFFICIAL RATING FORM

### MIDDLE SCHOOL

Judges: Using minimal (1-4 points), adequate (5-8 points), or exemplary (9-10 points) performance levels as a guideline in the rating form, record the scores earned for the event criteria in the column spaces to the right. The X1 or X2 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an "adequate" score of 7 for an X1 criterion = 7 points; an "adequate" score of 7 for an X2 criterion = 14 points.) A score of zero (0) is acceptable if the minimal performance for any criterion is not met.

#### Go/No Go Specifications

- Before judging the entry, ensure that the items below are present; indicate presence with a check mark in the box.
- If an item is missing, leave the box next to the item blank and place a check mark in the box labeled ENTRY NOT EVALUATED.
- If a check mark is placed in the ENTRY NOT EVALUATED box, the entry is not to be judged.

Computer hardware is present

ENTRY NOT EVALUATED

#### TEST SCORE (50 points)

Average of the two (2) team member's test scores.

#### TEST SCORE SUBTOTAL (50 points)

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: \_\_\_\_\_

#### PRELIMINARY SUBTOTAL (50 points)

#### ON-SITE PROBLEM – OBJECTIVE (80 points)

Evaluation: The ranking will be determined based on the submission time of the solution(s) to the on-site problem.

1st: 80 Points	2nd: 75 Points	3rd: 70 Points	4th: 65 Points	5th: 60 Points
6th: 55 Points	7th: 50 Points	8th: 45 Points	9th: 40 Points	10th: 35 Points

#### ON-SITE PROBLEM (OBJECTIVE) SUBTOTAL (80 points)

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: \_\_\_\_\_

#### SEMIFINAL SUBTOTAL (80 points)

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To arrive at the **TOTAL** score, add any subtotals and subtract rules violation points, as necessary.

**TOTAL (130 points)**

Comments:

I certify these results to be true and accurate to the best of my knowledge.

**JUDGE**

Printed name: \_\_\_\_\_ Signature: \_\_\_\_\_

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## EVENT COORDINATOR INSTRUCTIONS

### PERSONNEL

- A. Event coordinator
- B. Judges, two (2) or more
- C. Assistants, two (2) or more

### MATERIALS

- A. Coordinator's packet, containing:
  - 1. Event guidelines, one (1) copy for the coordinator and for each judge
  - 2. TSA Event Coordinator Report
- B. Tables and chairs for participants
- C. Tables and chairs for judges
- D. Twelve (12) copies of a well-written, technologically appropriate problem for each semifinalist team that can be objectively measured; one (1) copy per team
- E. Adequate conditions, tools, materials, monitoring, and testing devices for the problem
- F. Stopwatch or clock for timekeeper

### RESPONSIBILITIES

#### AT THE CONFERENCE

- A. Attend the mandatory event coordinator's meeting at the designated time and location.
- B. Report to the CRC room and check the contents of the coordinator's packet.
- C. Review the event guidelines and check to see that enough personnel have been scheduled.
- D. Inspect the area(s) in which the event is to be held for appropriate set-up, including room size, chairs, tables, etc. Notify the event manager of any potential problems.
- E. At least one (1) hour before the event is to begin, meet with judges to review time limits, procedures, regulations, evaluation, and all other details related to the event. If questions arise that cannot be answered, speak to the event manager before the event begins.
- F. Ensure the judges have access to the online judging system.

### PRELIMINARY ROUND

- A. Prior to the conference, the event coordinator shall become familiar with the format of the exam (refer to the [National TSA Conference Competition Requirements](#)).
- B. Begin the event at the scheduled time by closing the doors and checking the entry list.
- C. All participants and judges should be in the room at this time.
- D. Late participants and/or entries are considered on a case-by-case basis and only when lateness is caused by events beyond the participant's control.
- E. In order to compete, participants must be on the entry list or must have approval of the CRC.
- F. Distribute any necessary materials.
- G. Monitor the one (1)-hour test.
- H. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and the CRC manager to determine either:
  - 1. To deduct twenty percent (20%) of the total possible points in this round
  - 2. To disqualify the entry

The event coordinator, judges, and CRC manager must initial either of these actions on the rating form.

### SEMIFINAL ROUND

- A. At least one (1) hour before the event is scheduled to begin, meet with semifinalist judges to review time limits, procedures, regulations, evaluation, and all other details related to the event. If questions arise that cannot be answered, speak to the event manager before the event begins.
- B. Check in the semifinalist teams and equipment. Teams must bring:
  - 1. One (1) laptop
  - 2. Extra charged laptop battery or extra charged laptop as backup (but only one laptop may be used at any time)
  - 3. One (1) computer mouse
  - 4. Teams may also bring pencils and paper.
  - 5. Portable power bank (if desired)

- C. Participants do NOT have access to electrical power/outlets during the event.
- D. Participants do NOT have access to the Internet during the event.
- E. Participants must have all software development tools needed for the competition downloaded and accessible on their computers.
- F. Once teams are seated and general announcements have been given, distribute and review the problem and start the time.
- G. All solutions must be tested, demonstrated and presented by participants in front of the judges. Judges and assistants observe, with judges evaluating solutions as soon as appropriate.
- H. Discuss rule violations (e.g., 20% deduction, disqualification) and have all relevant parties initial the rating form.
- I. Manage security and the removal of materials from the area.