

## RELATED TECHNICAL MATH NYS



### PURPOSE

To evaluate the contestant's understanding and ability to solve mathematical problems commonly found in the skilled trades, professional and technical occupations.

### ELIGIBILITY

Open to active SkillsUSA members.

### CLOTHING REQUIREMENT

**NYS Official attire for men:** Official red blazer, NYS Black Jacket, the older red national windbreaker or older red sweater and the Black Carhartt Jacket from Nationals. Black dress slacks; white dress shirt; plain black tie with no pattern or a SkillsUSA black tie. Black socks and black shoes.

**NYS Official attire for women:** Official red blazer, NYS Black Jacket, the older red national windbreaker or older red sweater and the Black Carhartt Jacket from Nationals. Black dress slacks or skirt with businesslike white, collarless blouse or white blouse with small, plain collar that may not extend on to the lapels of the blazer; black sheer or skin-tone hose and black shoes, that are not backless or open toe.

**Note:** Contestants must wear their official contest clothing to the contest orientation meeting.

### EQUIPMENT AND MATERIALS

- Supplied by NYS chair/committee:
  - Tables and chairs
  - Test problems and instructions
  - Scratch paper and pencils
  - Formula sheets and conversion tables/charts
- Supplied by the contestant:
  - Basic Hand-held or scientific calculator (graphing calculator are permitted but not necessary).
  - All competitors must create a one-page résumé and submit a hard copy to the technical committee chair at orientation.

Failure to do so will result in a 10-point penalty.

**Note:** Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the NYS SkillsUSA Web site:

<http://www.nysskillsusa.org/>

**Note:** No reference materials may be used other than those provided by the chair/committee.

### SCOPE OF THE CONTEST

#### Knowledge Performance

A written knowledge test will be required. A sound knowledge of geometry, algebra, trigonometry and basic statistics will prepare the students to exhibit their problem-solving skills for this part of the contest.

#### Skill Performance

There is no skill performance component of this contest.

#### Contest Guidelines

- The written knowledge test comprises 50 problems applicable to any career and technical field. It covers applications of the fundamental operations of whole numbers, fractions and decimals, including applications of percentages, ratio and proportion, averages, areas and volumes.
- The written knowledge test will provide the student the opportunity to demonstrate his or her problem-solving skills, not just mathematical ability.
- Students have two hours to complete the problems and check their answers.
- Hand-held calculators may be used. Competitors need nothing more than a simple calculator that can be purchased for about \$10–\$15. A graphing calculator is not necessary. The test is based on real-world mathematical applications and reasoning — not theoretical mathematics.
- No bonus will be given for early completion of the written knowledge test.