

MATHEMATICAL APPLICATIONS

GENERAL CONTEST RULES:

This contest will be an individual event. **The contestant must be a current 11th or 12th grade student.** Each student will be given an individual test of 20 application problems and terms. The resulting score will be graded on a scale of 0–100. Calculators may be used. The written objective test may consist of items such as application problems based on percentages, discounts, interests, taxes, hours worked, gross income, net income, banking, loans, housing costs, mortgage loan, and installment plans.

All competitors must take the PDP test and this score will be use in the event of a tie. Contestants will submit a resume.

PURPOSE:

- to demonstrate competency in life skill math applications and problem solving
- to develop an appreciation for competition
- to relate math and technical instruction to workplace readiness

ELIGIBILITY:

Open to one active 11th or 12th grade SkillsUSA member per chapter.

SUBMISSION:

Contestant will take an onsite test.

CLOTHING REQUIREMENTS:

For Men:

Official red blazer or jacket, black dress slacks, white dress shirt, plain black tie with no pattern or SkillsUSA black tie, black socks, and black shoes OR Professional/Business Dress.

For Women:

Official red blazer or jacket, black dress slacks or skirt, with businesslike white, collarless blouse or white blouse with small, plain collar that may not extend onto the lapels of the blazer, black sheer or skin-tone hose, and black shoes OR Professional/Business Dress.

AWARDS:

Gold, Silver and Bronze medals will be awarded for 1st, 2nd, and 3rd place. The winner of this contest does not advance to the National SkillsUSA Leadership and Skills Conference.

EVALUATION CRITERIA:

1. Written Test – 100%

SAMPLE QUESTIONS:

1. Garrett's last commission check from work was for \$200. If he makes 5% commission what were his total sales?
 - a. \$2,500
 - b. \$25,000
 - c. \$4,000
 - d. \$40,000

2. Solve for x.

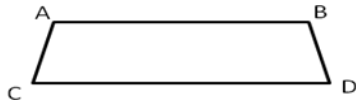
$$y=2x+10 \text{ and } x= 2y + 4$$

- a. -8
- b. -2
- c. 2
- d. 8

3. Which statement is not correct?

- a. 84 ounces is equal to 8 pounds
- b. 96 cups is equal to 6 gallons
- c. 9 days equals 216 hours
- d. 2 miles equals 10,560 feet

4. The isosceles trapezoid has a perimeter of 180 inches, the line segment AB measures 47 inches and the line segment AC measures 30 inches. How long is the line segment CD?



- a. 47 inches
- b. 73 inches
- c. 77 inches
- d. 103 inches

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Items Evaluated	Possible Points																		
Written Test																			
A 20 question test of applications and mathematical terms	100																		
Subtotal Points	100																		
Point Deduction																			
Dress Code Violation	-25																		
Total Points																			