

# TRACK Welding Pre-Apprenticeship Assessment Instructions and Formulas

This exam is designed to assess knowledge of what a student would learn during their first year of a welding apprenticeship.

## Instructions

1. The proctor shall read the assessment instructions and provide a copy of the TRACK Welding Pre-Apprenticeship Assessment instructions and formulas to each participant prior to administration of the assessment.
2. The proctor **shall not** be the teacher of record for the content being assessed.
3. The TRACK Welding Pre-Apprenticeship Assessment includes 75 questions. Students will have a maximum of three (3) hours, during a single session, to complete the assessment.
4. TRACK Welding Assessment accommodations **shall** be provided in accordance with the student's documented Individual Education Program (IEP), 504 Plan or PSP. The TRACK Welding assessments **shall** be administered in compliance with the 703 KAR 5:080 Administration Code for Kentucky's Educational Assessment Program, 703 KAR 5:070 Inclusion of Special Populations regulations and the TRACK Welding Pre-Apprenticeship Assessment Instructions and Formula Sheet.
5. Students **may** use State approved calculators on the TRACK Welding Pre-Apprenticeship Assessment. A basic calculator is also available in the online testing system.
6. Students **may** use the geometric formulas provided on the following page. You may be required to use more than one formula to work a problem. It is assumed that you have some of the basic geometric formulas memorized, so they are not provided.
7. Students **may** use blank scratch paper to work a problem. All scratch paper **shall** be collected and destroyed by the test administrator immediately following the test.
8. Students **shall not** use textbooks, reference materials, smartphones, or other aids (including electronic) not specifically approved in these instructions. Prohibited devices should be collected and securely stored away from the testing area.
9. Test materials **shall not** be duplicated in any way.
10. Test materials **shall not** be saved to any hard drive, network drive, or any other data device.
11. Student test accounts **shall not** be accessed by any person other than the student whose name appears on the test ticket.
12. Students must read each question and all answer choices before selecting the **best** answer.

13. A student shall score 70% or higher (correctly answering a minimum of 53 out of 75 questions) to pass this assessment.

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## Formula Sheet

Pythagorean Theorem

$$A^2 + B^2 = C^2$$

$$C^2 - B^2 = A^2$$

$$\pi = 3.14$$

Circumference of a circle =  $\pi$  \* diameter

Area of a circle =  $\pi$  \* radius<sup>2</sup>

Area of a rectangle = length \* width

Area of a triangle =  $\frac{1}{2}$  base \* height

Volume of cylinder =  $\pi$  \* radius<sup>2</sup> \* height

Volume of rectangular prism (box) = length \* width \* height

Volume of triangular prism =  $\frac{1}{2}$  base \* width \* height

Volume of a cone =  $\pi$  \* radius<sup>2</sup> \* height  $\div$  3

Volume of a sphere =  $V = \frac{4}{3} \pi r^3$

## Conversions

inches to mm: 1 inch = 25.4 mm, multiply the length in inches by 25.4

inches to cm: 1 inch = 2.54 cm, multiply the length in inches by 2.54

mm to inches: 1 mm = .0393707 inch, divide the value in mm by 25.4

cm to inches: 1 inch = 2.54 cm, divide the value in cm by 2.54