



# 2021-2022

## Technical Skills Assessment

### Construction Trades

### Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Construction Trades	% Correct	% Correct	% Correct	% Correct
Number tested: 109	17-18	18-19	20-21	21-22
<b>CONTENT STANDARD 1.0: INDUSTRY SKILLS AND HABITS</b>	61.04%	70.56%	63.92%	67.25%
<b>Performance Standard 1.3: OSHA Standards</b>	61.04%	70.56%	63.92%	67.25%
1.3.1 Define the purpose of OSHA.	96.25%	100.00%	97.94%	97.37%
1.3.3 Describe the record keeping requirements for OSHA compliance.	27.50%	49.35%	38.14%	43.86%
1.3.4 List safety and health hazards that OSHA may inspect for in a shop or on a job site.	60.63%	68.51%	61.86%	65.57%
<b>CONTENT STANDARD 3.0: MATH AND MEASUREMENT SKILLS</b>	73.29%	75.06%	71.55%	72.22%
<b>Performance Standard 3.1: Basic Math</b>	75.31%	76.62%	77.84%	73.03%
3.1.1 Identify terms associated with basic math.	69.58%	72.29%	73.54%	67.84%
3.1.2 Identify symbols used in math problems.	92.50%	89.61%	90.72%	88.60%
<b>Performance Standard 3.2: Mathematical Operations Using Whole Numbers.</b>	91.25%	88.74%	89.35%	88.60%
3.2.1 Label the place values of a whole number.	91.25%	91.56%	90.21%	89.47%
3.2.2 Add, subtract, multiply, and divide whole numbers.	91.25%	83.12%	87.63%	86.84%
<b>Performance Standard 3.3: Fractions, Decimals and Percentages</b>	78.33%	79.08%	75.60%	75.24%
3.3.1 Distinguish among types of fractions.	82.50%	81.17%	76.80%	78.51%
3.3.2 Reduce fractions to lowest terms.	76.88%	79.87%	75.26%	75.00%
3.3.5 Add, subtract, multiply, and divide fractions.	63.75%	68.83%	62.20%	61.99%
3.3.8 Convert decimal fractions to common fractions.	97.50%	91.56%	94.85%	92.11%
<b>Performance Standard 3.4: Basic Geometry</b>	53.75%	56.49%	48.45%	53.07%
3.4.4 Calculate the area of geometric figures.	50.63%	55.19%	45.88%	48.68%
3.4.6 Estimate cubic yards.	56.88%	57.79%	51.03%	57.46%
<b>Performance Standard 3.5: Measuring Operations</b>	70.38%	74.16%	69.28%	71.93%
3.5.1 Identify terms associated with measuring.	36.88%	49.35%	34.54%	37.28%
3.5.2 Identify basic measuring tools used by carpenters.	86.88%	86.36%	83.51%	82.89%
3.5.8 Read measurements on tapes.	89.38%	91.56%	89.18%	92.98%

Assessment: Construction Trades Number tested: 109	% Correct 17-18	% Correct 18-19	% Correct 20-21	% Correct 21-22
3.5.9 Demonstrate the ability to use basic measuring tools and the 3-4-5 method to lay out the perimeter of a building.	69.38%	71.75%	69.59%	73.25%
<b>CONTENT STANDARD 5.0: USE AND MAINTENANCE OF HAND AND POWER TOOLS</b>	68.91%	72.16%	69.39%	66.86%
<b>Performance Standard 5.1: Common Carpentry Hand Tools</b>	71.67%	70.78%	69.07%	69.74%
5.1.1 Explain the care and safe use of hand tools.	67.50%	58.44%	62.89%	58.77%
5.1.2 Identify and match carpentry hand tools to their correct uses.	72.50%	73.25%	70.31%	71.93%
<b>Performance Standard 5.2: Power Tools</b>	67.94%	72.65%	69.50%	65.84%
5.2.1 Identify terms associated with power tools.	49.38%	49.35%	51.03%	45.61%
5.2.2 Explain the general safety rules pertaining to power tools.	65.00%	72.73%	64.43%	62.28%
5.2.3 Explain how to maintain power tools properly.	86.88%	89.61%	84.54%	78.07%
5.2.4 Explain the safe operation for portable and stationary power tools.	68.33%	71.00%	71.48%	64.33%
5.2.5 Explain rules for the safe use of pneumatic fasteners.	93.75%	90.91%	90.21%	87.28%
5.2.8 Match saw blades to their correct uses.	41.25%	50.65%	45.36%	55.26%
5.2.9 Complete a safety test for specific tools.	81.25%	88.31%	85.05%	83.77%
5.2.10 Perform rip and miter cut-off operations.	57.50%	69.48%	62.89%	50.88%
<b>CONTENT STANDARD 6.0: SITE PREPARATION, CONCRETE FORMS AND FORMING</b>	65.31%	69.48%	65.46%	70.18%
<b>Performance Standard 6.1: Leveling Instruments</b>	73.75%	81.17%	75.26%	78.51%
6.1.11 Locate and square corners.	73.75%	81.17%	75.26%	78.51%
<b>Performance Standard 6.2: Concrete Footings and Foundations</b>	56.88%	57.79%	55.67%	61.84%
6.2.11 Calculate the cubic yards of concrete needed to pour a structure.	56.88%	57.79%	55.67%	61.84%
<b>CONTENT STANDARD 7.0: FRAMING</b>	61.19%	66.04%	63.09%	61.40%
<b>Performance Standard 7.1: Floors and Sills</b>	60.63%	62.34%	59.28%	55.26%
7.1.2 Identify floor and sill framing and support members.	60.63%	62.34%	59.28%	55.26%
<b>Performance Standard 7.2: Floors and Sill Installation</b>	64.38%	59.09%	58.76%	55.70%
7.2.1 Demonstrate the ability to lay out a floor system.	64.38%	59.09%	58.76%	55.70%
<b>Performance Standard 7.3: Wall and Partition Members</b>	59.38%	60.61%	63.40%	61.99%
7.3.1 Identify and describe the function of the wall framing members.	80.63%	75.97%	74.74%	76.75%
7.3.5 Calculate rough opening (R.O.) dimensions for doors.	48.13%	64.29%	70.62%	67.54%
7.3.7 Calculate the length of headers for rough openings.	49.38%	41.56%	44.85%	41.67%
<b>Performance Standard 7.4: Frame a Single-story Structure</b>	61.75%	71.43%	64.54%	63.42%
7.4.1 Demonstrate the ability to lay out a wall and partition locations on a floor.	80.00%	85.71%	73.71%	74.56%
7.4.2 Cut studs, trimmers, cripples, and headers to length.	41.25%	43.51%	41.24%	47.37%
7.4.3 Assemble corners, Ts, and headers.	38.13%	52.60%	36.60%	39.04%

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7.4.4 Construct wall sections for a single-story structure.	70.00%	87.66%	89.18%	78.51%
7.4.5 Erect and brace wall sections for a single-story structure.	79.38%	87.66%	81.96%	77.63%
<b>CONTENT STANDARD 8.0: ROOF CONSTRUCTION TECHNIQUES</b>	58.38%	62.60%	55.88%	55.53%
<b>Performance Standard 8.2: Construct a Roof</b>	56.25%	62.66%	53.87%	54.50%
8.2.1 Estimate material needed to frame a roof.	53.13%	60.39%	53.09%	54.39%
8.2.2 Lay out rafter locations on top plate and ridge board.	58.75%	65.58%	59.28%	57.02%
8.2.4 Apply roof sheathing.	46.25%	56.49%	46.91%	51.75%
8.2.5 Erect trusses by hand and or light crane.	66.88%	68.18%	56.19%	54.82%
<b>Performance Standard 8.4: Roofing Materials</b>	66.88%	62.34%	63.92%	59.65%
8.4.2 Discuss safety rules pertaining to roofing.	66.88%	62.34%	63.92%	59.65%
<b>CONTENT STANDARD 9.0: INTERIOR STAIRCASE CONSTRUCTION</b>	56.67%	54.98%	53.95%	61.11%
<b>Performance Standard 9.2: Staircase Construction</b>	56.67%	54.98%	53.95%	61.11%
9.2.1 Calculate number and size of risers and treads for a stair of given dimensions.	56.67%	54.98%	53.95%	61.11%
<b>CONTENT STANDARD 11.0: WINDOWS, EXTERIOR AND INTERIOR DOORS, AND ASSOCIATED</b>	26.88%	48.70%	34.54%	32.46%
<b>Performance Standard 11.2: Window Unit Installation</b>	26.88%	48.70%	34.54%	32.46%
11.2.2 Demonstrate the ability to install various window units.	26.88%	48.70%	34.54%	32.46%
<b>CONTENT STANDARD 13.0: JOB COORDINATION</b>	76.88%	70.13%	66.49%	72.37%
<b>Performance Standard 13.2: Inspection and Code Requirements</b>	76.88%	70.13%	66.49%	72.37%
13.2.1 Explain the purpose of Building Codes.	76.88%	70.13%	66.49%	72.37%