

Now  
Available

# Metalworking Skills Assessment



Designed Specifically

for the Metalworking Industry

## Pre-employment Assessments

## Training Assessments

This *new tool* is designed to evaluate the skills of workers with limited manufacturing experience who are seeking employment and/or training in the metalworking industry. Its unique modular form of scoring allows the user to evaluate the strengths and weaknesses of each test taker and develop an individualized training plan by subject area.



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# Uses

- Pre-employment assessment tool
- Tool for assessing skill levels of new hires
- Tool for developing individualized training plans for employees

## Development and Validation

The Metalworking Skills Assessment was developed by Jane Addams Resource Corporation, with assistance from PMA, with a grant awarded by the Joyce Foundation, Chicago. The test was validated by a professional contractor using employees with 6-12 months experience, located throughout the US. The validation process included a readability study and tests for age, gender, and racial bias.

The test package includes an Administration Guide which contains information on test development and validation process, instructions for administering the test, cut-scores and scoring information and guidelines.

### Sample Questions

#### Basic Mathematics

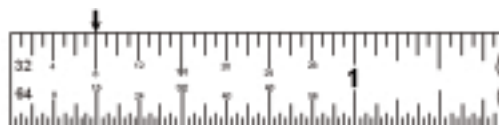
- |   |                                |
|---|--------------------------------|
| 1) $\begin{array}{r} 110.2 \\ +126.3 \\ \hline \end{array}$ | 2) $\frac{3}{4} + \frac{1}{8}$ |
| (A) 236.1   | (A) $\frac{5}{8}$              |
| (B) 136.5   | (B) $\frac{4}{8}$              |
| (C) 236.5   | (C) $\frac{2}{8}$              |
| (D) 16.1  | (D) $\frac{7}{8}$              |

#### Applied Mathematics

- (3) A machinist cuts bar stock that measures 200 inches in length into five equal pieces. How long are those pieces?
- (A) 20 inches  
(B) 30 inches  
(C) 40 inches  
(D) 60 inches
- (4) A stamping press produces 3000 parts, but 60 were bad. What percentage of the parts were bad?
- (A) 20%  
(B) 5%  
(C) 25%  
(D) 2%

#### Measuring (Note: ruler also available in 8 and 16 scale).

- (5) What is this measurement?



- (A)  $\frac{1}{4}$                       (B)  $\frac{1}{2}$                       (C)  $\frac{1}{8}$                       (D)  $\frac{1}{6}$

# Description & Benefits

This test evaluates the core competencies required of workers in the metalworking industry. Available in packages that contain 10 copies of Test A, 10 copies of Test B, an Administration Guide and Answer Template.

- Modular format assesses 5 areas with cut scores for each section. Evaluates:
  - **Basic Mathematics** (whole numbers, fractions, decimals)
  - **Applied Mathematics** (reading problems)
  - **Measuring** (rules, micrometers, calipers)
  - **Blueprint Reading** (machining and stamping prints)
  - **Fundamentals of Manufacturing Technology** (safety, quality, machinery)
- 56 questions in a multiple-choice format
- 45 minute timed test
- Easy to grade
- Easy on-site administration
- Available in 2 versions which offer comparable levels of difficulty

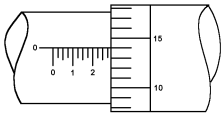
## Test Package

Available only in test package or multiple packages.  
Individual tests not available.  
Test package contains:  
10 copies of Test A  
10 copies of Test B  
1 Administration Guide  
1 Answer template

## Ordering Information

Orders are shipped UPS ground service unless otherwise requested. Please include your street address (not a postal box) with your order. Allow two weeks from the date we receive your order for delivery. Order by mail, phone or fax.

(6) Micrometer



- (A) .289      (B) 2.314      (C) 2.890      (D) .214

**Blueprint Reading questions are not included in sample.**

**Fundamentals of Manufacturing Technology (Note: these are actual questions from the test)**

- (7) The purpose of Statistical Process Control (SPC) is to...
- (A) control material use.
  - (B) measure scrap quantity.
  - (C) control the manufacturing process.
  - (D) control machine operators.
- (8) Machine guards are used to...
- (A) protect the operator from moving machine parts.
  - (B) make an operator aware that the machine is in maintenance.
  - (C) handle oversize parts being run on the machine.
  - (D) display important information about the safe operation of the equipment.

NOTE: None of these questions are on the actual tests, except for the two in the Fundamentals of Manufacturing Technology section.

Answers:

- (1) C
- (2) D
- (3) C
- (4) D
- (5) A
- (6) A
- (7) C
- (8) A

# Order Form

Complete and mail or fax the order form included here with your payment to the PMA Educational Foundation:

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<u>Qty</u>	<u>Member</u>	<u>Nonmember</u>
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Within <b>Continental US</b> , add \$10 for first package; \$4 for each additional package. For <b>Canada</b> , add \$15 for first package; \$5 for each additional. For <b>Mexico</b> , add \$44 for each package. <b>Elsewhere</b> , all orders are sent via air and charged at current international UPS shipping rates.		
<b>Multiple Discount</b>	- _____	- _____
10-19 packages 5% 20 or more packages 10%		
<b>Total Purchase</b>	\$ _____	\$ _____

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