

Accuracy**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- _____ 1. Perform the indicated operation. Write the answer with the correct number of significant digits.
895.136 m + 276.51 m
a. 1171.6 m
b. 1172 m
c. 1171.646 m
d. 1171.65 m
- _____ 2. Perform the indicated operation. Write the answer with the correct number of significant digits.
569.436 in. – 28.88 in.
a. 540.56 in.
b. 540.6 in.
c. 540.556 in.
d. 541 in.
- _____ 3. A seamstress measures an inseam to the nearest centimeter and reports its length as 71 cm. What is the least possible length of the inseam? What is the greatest possible length of the inseam?
a. least: 70.5 cm
greatest: 71.5 cm
b. least: 69.5 cm
greatest: 70.5 cm
c. least: 69.5 cm
greatest: 71.5 cm
d. least: 70 cm
greatest: 72 cm
- _____ 4. At a local acoustic guitar shop, the lute maker sets the strings of the guitars to a height of between $\frac{2}{32}$ and $\frac{4}{32}$ inches above the fingerboard. Express the range of acceptable heights using a tolerance.
a. $\frac{3}{32}$ inch
b. $\frac{3}{32} \pm \frac{1}{32}$ inch
c. $\frac{4}{32} \pm \frac{2}{32}$ inch
d. $\frac{2}{32} \pm \frac{2}{32}$ inch
- _____ 5. Choose the possible range of the measurement $0.5 \text{ mg} \pm 0.2\%$.
a. 0.48 mg–0.52 mg
b. 0.3 mg–0.7 mg
c. 0.499 mg–0.501 mg
d. 0.49 mg–0.51 mg

Name: _____

ID: A

- _____ 6. The tolerance for a plank of wood at a factory is $3 \text{ yd} \pm 0.002 \text{ yd}$. Which of the following does NOT fall within the specified tolerance?
- a. 2.998 yd
 - b. 3.001 yd
 - c. 2.999 yd
 - d. 3.012 yd

- _____ 7. Cups are being manufactured for a set. The diameter of the mouth of the cup must be $5 \text{ in.} \pm 0.04 \text{ in.}$ A sample of cups have the diameters shown in the table. Which cup is not within the specified tolerance?

Cup	Diameter (in.)
A	4.90
B	5.00
C	5.03
D	4.99

- a. Cup A
 - b. Cup B
 - c. Cup C
 - d. Cup D
- _____ 8. Write the possible range for the measurement $47 \text{ cm} \pm 2.2\%$. Round to the nearest hundredth if necessary.
- a. 45.0 cm–47.0 cm
 - b. 46.78 cm–47.22 cm
 - c. 45.97 cm–48.03 cm
 - d. 44.8 cm–49.2 cm

Accuracy
Answer Section

MULTIPLE CHOICE

1. D
2. A
3. A
4. B
5. C
6. D
7. A
8. C

