## Accuracy

**Multiple Choice**
*Identify the choice that best completes the statement or answers the question.*

_____ 1. A company sells furniture for home assembly. Their largest bookcase has shelves that should be 120 cm, with a tolerance of 0.5 cm (120 cm ± 0.5 cm). A set of six shelves had lengths of 119.9 cm, 120.1 cm, 120.2 cm, 119.4 cm, 120.0 cm, and 120.6 cm. Which, if any, of the shelves are not within the specified tolerance?
   a. Only the 120.6 cm shelf
   b. All of the shelves are within the tolerance.
   c. Both the 119.4 and 120.6 cm shelves.
   d. Only the 119.4 cm shelf

_____ 2. Write the possible range of the measurement to the nearest hundredth.
   30 cm ± 3%
   a. 29.1 cm—30.9 cm
   b. 29.97 cm—30.03 cm
   c. 27 cm—33 cm
   d. 29.55 cm—30.45 cm

_____ 3. Four students calculated the volume of a 12.8 oz container. Their results are shown in the table. Whose calculation is the most accurate?

| Student | Volume (oz) |
|---------|-------------|
| Wally | 12.546 |
| Rex | 12.59 |
| Amanda | 12.69 |
| Joni | 12.75 |

   a. Wally's
   b. Joni's
   c. Rex's
   d. Amanda's

____ 4. Last Saturday it rained 3 inches. The reading from four rain gauges is shown in the table. Which rain gauge is the most accurate?

| Rain Gauge | Rain (in.) |
|------------|------------|
| 1 | 3.12 |
| 2 | 3.22 |
| 3 | 2.99 |
| 4 | 3.111 |

    a.   Gauge 1                c.   Gauge 3
    b.   Gauge 2                d.   Gauge 4

____ 5. Four tailors measure a 76.22 cm inseam. Their results are shown in the table. Whose measurement is the most accurate?

| Tailor | inseam (cm) |
|--------|-------------|
| Jan | 76.322 |
| Taylor | 76.2 |
| Bret | 76.18 |
| Jamaal | 76.1 |

    a.   Taylor                c.   Jamaal
    b.   Jan                  d.   Bret

____ 6. A kitten weighs 2.256 lbs. Which of the following measurements is the most accurate?
    a.   2.2 lbs                c.   2.4 lbs
    b.   2.19 lbs              d.   2.365 lbs

____ 7. Perform the indicated operation. Write the answer with the correct number of significant digits.
1.8530 ft $\times$ 341.8 ft
    a.   633.3554 ft$^2$           c.   633.36 ft$^2$
    b.   633.4 ft$^2$              d.   633.355 ft$^2$

____ 8. Perform the indicated operation. Write the answer with the correct number of significant digits.
591.366 ft$^2$ $\div$ 77.9 ft
    a.   7.59 ft                c.   7.5913 ft
    b.   7.591 ft             d.   7.59135 ft

**Accuracy**
**Answer Section**

**MULTIPLE CHOICE**

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