Al Foil Prelab Name:

1. The correct result (indicating the proper number of significant figures) of the following addition is \_\_\_\_\_\_\_\_.

12

A) 13

B) 13.3

C) 13.33

D) 13.332

E) none of the above

1.2

0.12

+ 0.012

2. The correct result of the molecular mass calculation for H2SO4 is \_\_\_\_\_\_\_\_\_\_\_\_\_.

4 × 15.9994 + 32.066 + 2 × 1.0079 =

A) 98.08

B) 98.079

C) 98.074

D) 98.838

E) 98.84

3. There are \_\_\_\_\_\_\_\_\_\_ significant figures in the answer to the following computation:



A) 1

B) 2

C) 3

D) 4

E) 5

4. Osmium has a density of 22.6 g/cm3. What volume (in cm3) is a 21.8 g sample of osmium?

A) 0.965

B) 1.04

C) 493

D) 

E) 

A rectangular box has dimensions of 2.90 cm X 3.501 cm X 1.05 101cm.

5. The volume of the box is:

A) 101.5 cm3

B) 102 cm3

C) 1.015 X 101cm3

D) 100 cm3

6. The box is made of copper whose density is 8.9 g/cm3. What is the mass of the rectangular box?

A) 907.8 g

B) 9.078 X 102 g

C) 910 g

D) 908 g

A lab was performed and the students decided that the accepted value for the density of their solid should be the class average of the obtained values. Here are the results obtained by each group.

|  |  |
| --- | --- |
| Group | Density |
| 1 | 11.6 g/cm3 |
| 2 | 12.1 g/cm3 |
| 3 | 11.9 g/cm3 |
| 4 | 13.5 g/cm3 |
| 5 | 11.8 g/cm3 |

7. What is the accepted result, based on the data?

A) 11.9 g/cm3 because the value from Group 2 is not precise.

B) 12.2 g/cm3 because all data should be considered.

C) 11.9 g/cm3 because the value from Group 2 is not accurate.