NAME:_____PER:_____

SCIENTIFIC NOTATION AND SIGNIFICANT FIGURES WORKSHEET

I. Write the following numbers in scientific or exponential notation.

1. 7300 ml _____
2. 6,000,000 m _____
3. 261 g _____
4. 42.3 mm_____
5. 21000 cm _____
6. 0.16 ml _____
7. 0.060 mg _____
8. 0.023 m _____
9. 0.0000623 g _____
10. 0.00035 kg _____

II. Write the following numbers in regular notation.

1. 2.6×10^{3} _____
2. 5.1×10^{6} _____
3. 4.23×10^{-2} _____
4. 6.10×10^{-3} _____
5. 9.26×10^{-1} _____
6. 7.6×10^{0} _____
7. 3.80×10^{-3} _____
8. 2.11×10^{6} _____
9. $.00765 \times 10^{-2}$ _____
10. 54.08×10^{3} _____

III. Write the correct number of significant figures in each of the following measurements.

1. 26.3 ml _____
2. 230 g _____
3. 21000 cm _____
4. 1706 m _____
5. 7000 mm _____
6. 0.0276 ml _____
7. 0.0030 mg _____
8. 0.0600 ml _____
9. 27600.0 m _____
10. 0.001 g _____

III. Perform the following math operations and report the answer using proper scientific or exponential notation. Be sure to use the concept of sig figs and include units with your answer.

1. 2.73 g + 2.3 g =
2. 2.11 g + 1.33 g + 3.5 g =
3. 13.76 g - 3.7 g =
4. 234.9 g - 2.22 g =
5. 7.62 g + 3.5 g - 2 g =
6. 287.98 m + 6.53 m - 21 m + 4.8 m =
7. 3.1×10^{2} g + 2.3×10^{3} g =
8. 6.12×10^{-1} mL - 4.3×10^{-2} mL =
9. 4.52×10^{4} mm - 9.2 cm =
10. 26.5 cm x 1.3 cm =
11. 7.60 g / 3.8 ml =
12. 2.311 cm x 3.21 cm x 4.1 cm =
13. 2 g /(1.22 cm x 3.1 cm x 2.1 cm)=
14. (2×10^{3} m) x (6×10^{2} m) =
15. (2.1×10^{-2} cm) x (2.6×10^{4} cm) =
16. 6.4×10^{2} mm x 2.1×10^{-3} mm =
17. (7.6×10^{3} g) / (3.8×10^{-2} ml) =
18. (2.6×10^{-2} g) / (1.3×10^{-2}cm^{3}) =
19. 2.65×10^{3} m x 3.2×10^{2} m x 2.0×10^{1} m =
20. (.0049 kg - 2.3 g) / (.312 m x 45.3 cm x 345 mm)=