CHE 101 - Homework - Ch 3a
SN, SF, Rounding

Score: _____/45

Name: _____ Date: _____

[2 pt] 1. Write the rules for each of the component parts in Scientific Notation.

$$N \times 10^n$$

N -

n -

[5 pt] 2. Write each of the following numbers in Scientific Notation (SN).

(a) 480,000,000 2(a) _____

(b) 0.001 56 2(b) _____

(c) 100.25 2(c) _____

(d) 0.000 000 000 000 206 2(d) _____

(e) 5.6 2(e) _____

[4 pt] 3. Write the rules for counting of Significant Figures (SF.)

[10 pt] 4. How many Significant Figures are in each of the following numbers:

(a) 0.0025 4(a) _____

(b) 25.014 4(b) _____

(c) 100.0 4(c) _____

(d) 5600 4(d) _____

(e) 0.005050 4(e) _____

(f) 0.01002 4(f) _____

(g) 2601.1 4(g) _____

(h) 2000. 4(h) _____

(i) 0.00151 4(i) _____

(j) 101.1010 4(j) _____

[10 pt] 5. Round each of the following numbers to given number of Significant Figures. Give your answers in Standard notation.

(a) 56.1248 (3 SF) 5(a) _____

(b) 0.00258851 (4 SF) 5(b) _____

(c) 0.0048723 (3 SF) 5(c) _____

(d) 25.824 (3 SF) 5(d) _____

(e) 6.3586 (4 SF) 5(e) _____

(f) 12.99 (2 SF) 5(f) _____

(g) 1.590 (3 SF) 5(g) _____

(h) 128.51 (3 SF) 5(h) _____

(i) 100.015 (3 SF) 5(i) _____

(j) 2500 (1 SF) 5(j) _____

[10 pt] 6. Round each of the following numbers to given number of Significant Figures. Give your answers in Scientific Notation.

(a) 84.526 (3 SF) 6(a) _____

(b) 0.000 058 32 (2 SF) 6(b) _____

(c) 12,589.32 (5 SF) 6(c) _____

(d) 250.55 (4 SF) 6(d) _____

(e) 0.006 598 17 (4 SF) 6(e) _____

(f) 18.95 (2 SF) 6(f) _____

(g) 0.595 (2 SF) 6(g) _____

(h) 12,000,000 (3 SF) 6(h) _____

(i) 0.000 000 599 (2 SF) 6(i) _____

(j) 100.015 (3 SF) 6(j) _____

[4 pt] 7. What are exact numbers (**two** types)? Give an example of each. How many significant figures are they?