Review of Scientific Notation and Significant Figures

Name: _____
Block: _____ Date:_____

1. Convert each of the following into scientific notation.
   a. 727 _____
   b. 172000 _____
   c. 0.000984 _____
   d. 200.0×10^{2} _____
   e. 0.014×10^{2} _____
   f. 2560000000000000000000000000000000 _____
      (use 4 sig. fig. for the last one)

2. Convert each into decimal form.
   a. 1.56×10^{4} _____
   b. 3.6×10^{-2} _____
   c. 736.9×10^{5} _____
   d. 0.0059×10^{5} _____
   e. 0.00059×10^{-1} _____

3. Calculate the following. Give the answer in correct scientific notation.

a) 2.34×10^{65}
$+ 9.2 \times 10^{66}$

b) 313.0
$- 1.2 \times 10^{3}$

4. Calculate the following. Give the answer in correct scientific notation.

a) $8.95 \times 10^{76} / 1.25 \times 10^{56}$

b) $(4.5 \times 10^{29})(2.45 \times 10^{100})$

5. Give the number of significant figures in each of the following.
   a. 1.05 g _____
   b. 0.0003040 mm _____
   c. 29000 ± 10 ft _____
   d. 0.90×10^{45} L _____
   e. the number of eggs (12) that make up a dozen _____

6. Determine the answer for each of the following. Be sure to use the correct number of significant figures.

a)
17.34
4.900
+ 23.1

b)
9.80
- 4.762

c) 3.9 x 6.05 x 420 =

d) 14.1 / 5 =

7. Round each of the following to 3 significant figures.
   a. 77.0653 _____
   b. 6,300,178.2 _____
   c. 0.00023350 _____
   d. 10.2030 _____
   e. 2.895×10^{21} _____