Intro Physics Unit - The Measure of Science Worksheet (Part 1 – Extra Questions)

1. Express the following measurements in scientific notation
   a. 0.003600 kg b. 0.004 kg c. 300 000 000 s

   d. 186 000 s e. 93 000 000 s f. 0.000 000 000 71 μm

2. Convert each of the following length measurements to its equivalent in meters
   a. 2.1 km b. 0.123 Mm c. 3500 μm

3. Convert each of these mass measurements to its equivalent in kilograms.
   a. 7.23 Mg b. 478 mg c. 1450 *pg*

4. Solve the following problems, express your answers in scientific notation.
   a. $(3.8 \times 10^{-12}\ m^2) - (1.90 \times 10^{-11}\ m^2)$ b. $(5.8 \times 10^{-9}\ m^2) - (2.8 \times 10^{-9}\ m^2)$
   c. $(2.26 \times 10^{-18}\ m^2) - (1.80 \times 10^{-18}\ m^2)$ d. $(5.0 \times 10^{-7}\ mg) + (4 \times 10^{-8}\ mg)$
   e. $8.2\ km - (3 \times 10^{2}\ m)$

5. Find the value of each of the following quantities
   a. $(6 \times 10^{-4}\ m)(5 \times 10^{-8}\ m)$ b. $(2.5 \times 10^{-7}\ m)(2.5 \times 10^{16}\ m)$

6. Find the value of each of the following quantities.
   a. $\frac{6\ x\ 10^{8}\ kg}{2\ x\ 10^{4} m^3}$ b. $\frac{6\ x\ 10^{8} kg}{2\ x\ 10^{-4} m^3}$