Physics 11: Metric and Scientific Notation.

**1. Write the following in Scientific Notation**

a. 250000m b. 0.0063s c. 975x104kg

d. 14g e. 0.00000985x103km f. 122x10-7m

g. 0.0098x10-4h h. 73300000000000J i. 0.000069x105N

**2. Complete the following metric conversions. (Show the appropriate conversion factors)**

a. 395cm x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m

b. 2km x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m

c. 66g x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ kg

d. 900mL x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ML

e. 400cm2 x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m2

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**2.** f. 1256ng x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hg

g. 3.954x10-12cm x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m

h. 7x108km x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Mm

**3. Fill in the Blanks Below Using Scientific Notation**

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ cm in one km and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ km in one cm.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ g in one ng and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ng in one g.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ MW in one hW and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hW in one MW.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ cm3 in one m3 and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m3 in one cm3.

**4. Solve the following. WITHOUT A CALCULATOR!**

a. (2x104m)(3x106m)/(4x105m) b. (2x103)(5x106)10-4x107x2x1011x5x10-15x10 x7

c. d.

**2.** f. 1256ng x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hg

g. 3.954x10-12cm x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m

h. 7x108km x x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Mm

**3. Fill in the Blanks Below Using Scientific Notation**

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ cm in one km and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ km in one cm.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ g in one ng and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ng in one g.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ MW in one hW and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hW in one MW.

There are \_\_\_\_\_\_\_\_\_\_\_\_\_ cm3 in one m3 and there are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m3 in one cm3.

**4. Solve the following. WITHOUT A CALCULATOR!**

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