Fill in the power and the symbol for the following unit prefixes. Look them up as necessary. These should be **memorized** for next year. Kilo- has been completed as an example.

Prefix	Power	Symbol
Giga-		
Mega-		
Kilo-	10^3	k
Centi-		
Milli-		
Micro-		
Pico-		

Not only is it important to know what the prefixes mean, it is also vital that you can convert between metric units. If there is no prefix in front of a unit, it is the base unit which has 10^0 for its power, or just simply "1". Remember if there is an exponent on the original unit, the converted unit should be raised to the same exponent.

Convert the following numbers into the specified unit. Use scientific notation when appropriate.

1. 24 g = _____ kg
2. 94.1 MHz = _____ Hz
3. 6 Gb = _____ kb
4. 640 nm = _____ m
5. 3.2 m^2 = _____ cm^2
6. 40 mm^3 = _____ m^3
7. 1 g/cm^3 = _____ kg/m^3
8. 20 m/s = _____ km/hr

For the remaining scientific notation problems you may use your calculator. It is important that you know how to use your calculator for scientific notation. The easiest method is to use the "EE" button. An example is included below to show you how to use the "EE" button.

Ex: 7.8×10^{-6} would be entered as 7.8 E -6

9. $(3.67 \times 10^3)(8.91 \times 10^{-6}) =$
10. $(5.32 \times 10^{-2})(4.87 \times 10^{-4}) =$
11. $(9.2 \times 10^6) / (3.6 \times 10^{12}) =$
12. $(6.12 \times 10^{-3})^3$