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33) a) $15\,cm^3 \times \frac{ml}{1\,cm^3} \times \frac{L}{1000\,ml} = \boxed{.015\,L}$

b) $7.38\,g \times \frac{Kg}{1000\,g} = \boxed{.00738\,Kg}$

c) $6.7\,s \times \frac{1000\,ms}{s} = \boxed{6,700\,ms}$

d) $94.5\,g \times \frac{1\times10^6\,\mu g}{g} = \boxed{9.45\times10^7\,\mu g}$

34) $.227\,nm \times \frac{m}{1\times10^9\,nm} \times \frac{100\,cm}{m} = \boxed{2.27\times10^{-8}\,cm}$

35. $1.3\times10^4\,Km \times \frac{1000\,m}{Km} \times \frac{10\,dm}{m} = \boxed{1.3\times10^8\,dm}$

36. $\frac{19.3\,g}{cm^3} \times \frac{Kg}{1000\,g} \times \frac{1\times10^6\,cm^3}{m^3} = \boxed{1.93\times10^4\,\frac{Kg}{m^3}}$

37. $\frac{7.0\times10^6\,cells}{mm^3} \times \frac{1000\,mm^3}{cm^3} \times \frac{cm^3}{ml} \times \frac{1000\,ml}{L} = 7.0\times10^{12}\,\frac{cells}{L}$

42. a) $14.8\,g \times \frac{1\times10^6\,\mu g}{g} = \boxed{1.48\times10^7\,\mu g}$

b) $3.72\times10^{-3}\,Kg \times \frac{1000\,g}{1\,Kg} = \boxed{3.72\,g}$

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42. c) $66.3\,L \times \frac{1000\,ml}{L} \times \frac{1\,cm^3}{1\,ml} = \boxed{6.63 \times 10^4\,cm^3}$

43) $5\,g \times \frac{atom}{3.271 \times 10^{-22}\,g} = \boxed{1.53 \times 10^{22}\ atoms}$

44) a) $7.5 \times 10^4\,J \times \frac{kJ}{1000\,J} = \boxed{7.5 \times 10^1 \text{ or } 75\ kJ}$

b) $3.9 \times 10^5\,mg \times \frac{g}{1000\,mg} \times \frac{10\,dg}{g} = \boxed{3.9 \times 10^3\,dg \quad 3{,}900\,dg}$

c) $2.21 \times 10^{-4}\,dL \times \frac{L}{10\,dL} \times \frac{1 \times 10^6\,\mu L}{L} = \boxed{2.21 \times 10^1\,\mu L \quad 22.1\,\mu L}$

45) $\frac{3.00 \times 10^{10}\,cm}{s} \times \frac{m}{100\,cm} \times \frac{Km}{1000\,m} \times \frac{60\,s}{min} \times \frac{60\,min}{h}$

$= \boxed{1.08 \times 10^9\ Km/h}$