

(1.) Please give names to the following: (10 x 2 points)

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|--------------------------------|----------------------------|--------------------|----------------------------|--------------------------|
| (a) $\text{Sr}(\text{CN})_2$ | (b) N_2F_3 | (c) U | (d) TeO_3 | (e) K_3P |
| (f) $\text{Al}(\text{NO}_2)_3$ | (g) Kr | (h) BeF_2 | (i) P_4O_6 | (j) SbF_5 |

(2.) Please formulate the following compounds: (15 x 2 points)

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|-------------------------|-------------------------|-------------------------|
| (a) lithium carbonate | (b) barium sulfate | (c) lead(IV) nitrite |
| (d) aluminum chlorate | (e) plumbic phosphate | (f) zinc telluride |
| (g) stannous sulfite | (h) ammonia | (i) ammonium sulfide |
| (j) manganic fluoride | (k) iron(III) phosphide | (l) cuprous bicarbonate |
| (m) dichlorine monoxide | (n) cobaltous nitrate | (o) magnesium nitride |

(3.) Please "match the pairs" by writing the *best* matching letter in the space given, using each letter once only: (10 points)

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|---------------------------|---|
| _____ ions | (A) # protons in atom |
| _____ exact numbers | (B) does not form compounds |
| _____ dissolved salts | (C) surrounds the nucleus |
| _____ transition-metals | (D) infinite precision |
| _____ neon | (E) atoms and molecules |
| _____ electron cloud | (F) often can form more than one cation |
| _____ no charge | (G) generated by electron-transfer |
| _____ Z | (H) recognized globally as standard |
| _____ molecular compounds | (I) electrolytes |
| _____ S. I. units | (J) formed from non-metallic elements |

(4.) Assuming that the quantities on the left of the arrows were all obtained by measurement, please interconvert the units, as designated. Show all work for full credit. (8 x 5 points)

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|--------------------------|----------------------|------------------------------------|-------------------------|
| (a) 6.902 ft^3 | -----> gal | (b) 7.03 g/cm^3 | -----> lb/ft^3 |
| (c) 1500 mm^2 | -----> ft^2 | (d) 2.69 lb/L | -----> kg/m^3 |
| (e) 13.7^3 oz | -----> kg | (f) $-14.4 \text{ }^\circ\text{C}$ | -----> $^\circ\text{F}$ |
| (g) 6.060 m^2 | -----> ft^2 | (h) $433 \text{ }^\circ\text{F}$ | -----> $^\circ\text{C}$ |

Given Units: $39.37 \text{ in} = 1 \text{ m}$; $2.54 \text{ cm} = 1 \text{ in}$; $453.6 \text{ g} = 1 \text{ lb}$; $1 \text{ oz} = 28.35 \text{ g}$;
 $1 \text{ gal} = 3.785 \text{ L}$; $1 \text{ L} = 10^3 \text{ mL}$; $1 \text{ mL} = 1 \text{ cm}^3$; $12 \text{ in} = 1 \text{ ft}$; $2.205 \text{ lb} = 1 \text{ kg}$; $10^3 \text{ g} = 1 \text{ kg}$;
 $16 \text{ oz} = 1 \text{ lb}$; $10 \text{ mm} = 1 \text{ cm}$; $1 \text{ km} = 0.6215 \text{ mile}$; $1 \text{ km} = 10^3 \text{ m}$; $t_F = (9/5)t_C + 32$