

Name Key Name NW = no work
 Sign _____ Print _____

BA = bad attempt NA = not attempted

Please **show work on all questions** for **full credit & partial credit**. (20 total pts) "confidence booster"

- 1 kilometer means 1000 meters (3 pts) *upside down 1000 - 1*
- Significant Figures: Show work for determining correct number of significant figures in the following calculations. (2 pts)
 $7.9 + 100.287 + 2.11 =$ to correct sig fig 1.1×10^2 *110 or 110,297 calculator 2 s.f.*
- Convert from 89.2 centigrams to pounds (453.5 g = 1 lb) Show work. (3pts)
 $89.2 \cancel{\text{cg}} \times \frac{1 \cancel{\text{g}}}{100 \cancel{\text{g}}} \times \frac{1 \text{ lb}}{453.5 \cancel{\text{g}}} = 1.97 \times 10^{-3}$ or 0.00197 pounds
- (a) Give the name of the element N (2 pts) nitrogen
 (b) Give the symbol for the element silicon (2 pts) Si

4. For the element F (flourine) answer the following (1 pts each blank, 6 pts total)

- How many protons 9 b) How many electrons for the neutral atom 9
- Give the symbol in the format $^A X_z$ for the same element $^{19}_9 \text{F}$ (1/2 pt)
- What group is the element in 7A e) What period is the element in 2
- What is the likely charge on the element -1 (1/2 pts) Explain or show work. (1/2 pts)
 $7 - 8 = -1$
 or $(\# \text{Mg})(+2) + (\# \text{N})(-3) = \text{Zero}$
- Is the element a [(metal) or (nonmetal)] (1/2 pt)
- Give the formula for the ionic compound made from the following elements (2 pts) (show work)
 $+2$ Mg and -3 N
gp. 5A - 5 - 8 = -3
 Mg^{+2} N^{-3} $\text{Mg}_3 \text{N}_2$

Extra Credit Question (Avogadro's number = 6.022×10^{23}) (4 pts) Show work. *wrong -1*

If you have 79.2 grams of the element Fe (iron), how many atoms of Fe do you have?

$$55.85 \text{ g Fe} = 1 \text{ mol Fe} = 6.022 \times 10^{23} \text{ atoms Fe}$$

$$79.2 \text{ g Fe} \times \frac{1 \text{ mol Fe}}{55.85 \text{ g Fe}} \times \frac{6.022 \times 10^{23} \text{ atoms Fe}}{1 \text{ mol Fe}} = 8.54 \times 10^{23} \text{ atoms Fe}$$

Name _____ Name _____
Sign _____ Print _____

Please **show work on all questions** for **full credit & partial credit**. (20 total pts) “confidence booster”

- 1 kilometer means _____ meters (3 pts)
- Significant Figures: Show work for determining correct number of significant figures in the following calculations. (2 pts)
 $7.9 + 100.287 + 2.11 =$ to correct sig fig _____
- Convert from 89.2 centi grams to pounds (453.5 g = 1 lb) Show work. (3pts)
- (a) Give the name of the element **N** (2 pts) _____
(b) Give the symbol for the element **silicon** (2 pts) _____
- For the element **F**(flourine) answer the following (1 pts each blank, 6 pts total)
 - How many protons _____ b) How many electrons for the neutral atom _____
 - Give the symbol in the format ${}^A_Z X$ for the same element _____ (1/2 pt)
 - What group is the element in _____ e) What period is the element in _____
 - What is the likely charge on the element _____ (1/2 pts) Explain or show work. (1/2 pts)
 - Is the element a [(metal) or (nonmetal)] (1/2 pt)

5. Give the formula for the ionic compound made from the following elements (2 pts) (show work)

Mg and N

Extra Credit Question (Avogadro's number = 6.022×10^{23}) (4 pts) Show work.

If you have 79.2 grams of the element **Fe** (iron) , how many atoms of **Fe** do you have ?