Isotopes

21. a) $_{26}Fe$ $26+30=\boxed{56}$

b) $_{95}Am$ $95+148=\boxed{243}$

c) $_{74}W$ $74+110=\boxed{184}$

23. a) $^{15}_{7}N$ $(7+8=15)$

b) $^{64}_{30}Zn$ $(30+34=64)$

c) $^{129}_{54}Xe$ $(54+75=129)$

25. a) $^{13}_{6}C$ $6\,p^+,\ 7n^\circ,\ 6e^-$ $(13-6=7)$

b) $^{63}_{29}Cu$ $29\,p^+,\ 34n^\circ,\ 29e^-$ $(63-29=34)$

c) $^{205}_{83}Bi$ $83\,p^+,\ 122n^\circ,\ 83e^-$ $(205-83=122)$

27.

Symbol	$^{65}_{29}Cu$	$^{86}_{36}Kr$	$^{195}_{78}Pt$	$^{82}_{36}Kr$
# p^+	29	36	78	36
# n°	36	50	117	46
# e^-	29	36	78	36
NAME	copper	krypton	platinum	krypton

31. $\boxed{^{19}_{9}X}$ $\boxed{^{20}_{9}X}$ $^{9}_{18}X$ $\boxed{^{21}_{9}X}$ □ = isotopes

33.

$(23.985042)(.7899) + (24.985837)(.1000) + (25.982593)(.1101)$

$= 24.3050519 = \boxed{24.31 \text{ amu}}$

35. $^{63}Cu = 62.939598$, $^{65}Cu = 64.927793$ } $Cu = 63.546$

let x = % abundance of ^{63}Cu

$(1-x)$ = % abundance of ^{65}Cu

$(62.939598)(x) + (64.927793)(1-x) = 63.546$

$62.939598x + 64.927793 - 64.927793x = 63.546$

$62.939598x - 64.927793x = 63.546 - 64.927793$

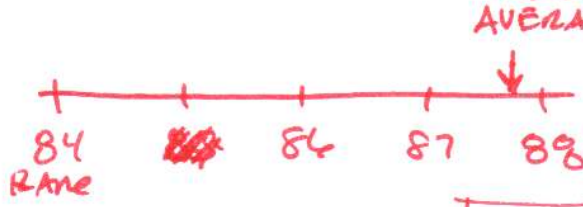
$-1.988195x = -1.381793$

$x = 0.69499$

$\approx 69.50\%$ ^{63}Cu

$(1-x) = 30.50\%$ ^{65}Cu

37. Look up Sr Atomic mass = 87.62 amu



^{88}Sr must predominate to average so high.