

Answers - check and RETURN

Chemistry Review - from grade 8 - 10

1. What are isotopes?

atoms of same element w different mass no.s

2. What information can you get from the atomic number of an element?

atomic no. = no. of protons = no. of electrons

3. What information do you get from the mass number of an element?

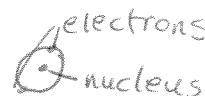
mass no. = protons + neutrons

4. How can you calculate the number of neutrons in an atom?

# neutrons = mass no. - atomic no.

5. Describe the basic structure of an atom using a diagram.

nucleus contains - protons (+ve) neutrons (neutral) electrons circle nucleus



6. Why are the noble gases (group 18) generally unreactive?

outer electron shell is full  $\therefore$  stable

7. Why do ions form?

because atoms must lose or gain electrons so outer shell is

8. Why do metal atoms generally form positive ions?

- usu. have < 4 electrons in outer shell

full

9. Why do the halogens form negative ions?

- must gain 1 electron to become stable

10. What is the difference between ionic and covalent bonds (the bond itself, not the elements involved)

ionic  $\rightarrow$  transfer of electrons covalent  $\rightarrow$  sharing of electrons

11. What do all elements in one group have in common?

all have same no. of valence electrons

12. What do all the elements in one period have in common?

have same no. of electron shells

13. What are some physical properties of metals?

malleable, ductile, good conductors

14. What are some chemical properties of metals?

some react w acid to form H<sub>2</sub> gas, form +ve ions

15. What is the point of balancing chemical equations?

because matter cannot be made or destroyed

16. Why do we put brackets around polyatomic ions before adding subscripts?

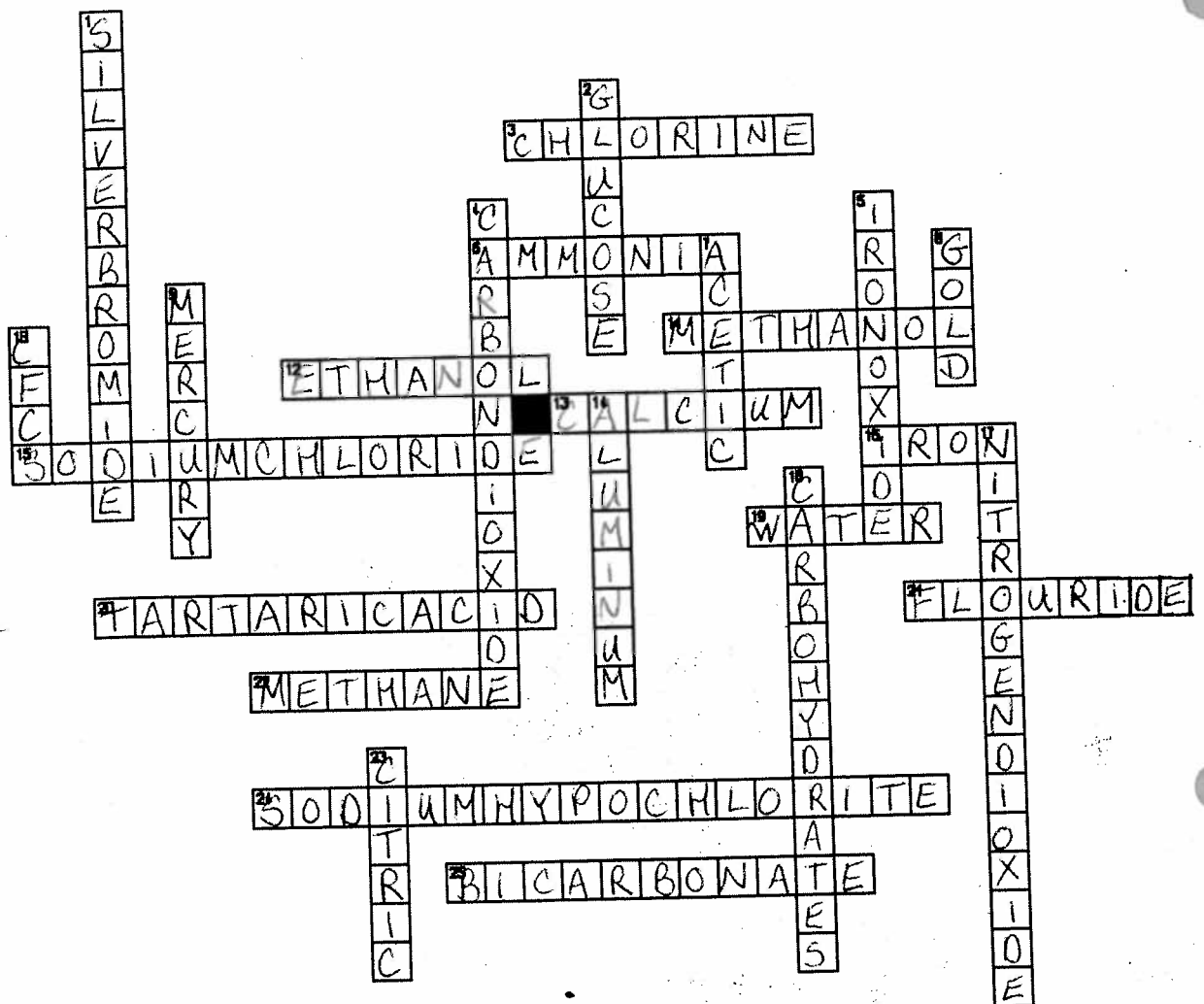
so the subscript will apply to the whole ion, not just one

17. What numbers may you change when balancing a chemical equation?

only the big numbers (coefficients)

element

# Your chemical neighbours



## Across

3. add it to your pool
6. window cleaner
11. rubbing alcohol
12. makes you tipsy
13. essential for bones and nerves
15. salt
16. deficiency causes anemia
19. dihydrogen monoxide
20. cream of tartar
21. keeps your teeth happy
22. natural gas
24. bleach
25. anion in baking soda

## Down

1. used in photographic film
2. sugar
4. makes your bread rise
5. rust
7. the type of acid in vinegar
8. measured in carats
9. made the mad hatter go mad
10. destroy the ozone layer
14. used in anti-perspirant
17. component of smog
18. give you energy
23. acid found in oranges