

QUIZ "0"

SEPTEMBER 3RD



Name _____

Date _____

Period _____

Why this quiz?

This quiz contains material that *many* (but not all) incoming students will have had in ninth grade. If you have forgotten these things or never had them in the first place, we need to know right away so we can fix it and help you succeed.

1. Solve for X. (rearrange to get X by itself on one side of the equals sign)

$$3x = 12$$

$$x = 4$$

2. Solve for X.

$$\frac{10+x}{5} = 2$$

$$x = \emptyset$$

3. Solve for X.

$$\frac{15}{x} = 5$$

$$x = 3$$

4. Solve for X.

$$\frac{x}{2} \times \frac{x}{8} = 1$$

$$x^2 = 16$$

$$x = 4$$

5. Simplify.

$$\frac{4}{3} \times \frac{6}{9} = \frac{24}{27} = \frac{8}{9}$$

6. Simplify

$$\frac{x}{3} \times \frac{12}{x} = 4$$

7. Simplify:

$$(x^6)(x^3)$$

$$x^9$$

8. Simplify:

$$\frac{(x^6)}{(x^3)} = x^3$$

9. In each line below, either circle true or false:

- a. (True / False) $1.23 \times 10^5 = 123000$.
- b. (True / False) $5.1 \times 10^5 = 5100000$.
- c. (True / False) 1000 meters = 1 millimeter
- d. (True / False) 10 millimeters = 1 centimeter
- e. (True / False) 1000 grams = 1 kilogram

10. What is difference between an atom of sodium and an ion of sodium?

Zero charge versus +1 charge (OR) atom of Na has 11 electrons ion atom of Na has 10 electrons

11. How many oxygen atoms are in a molecule of N_2O ?

one oxygen atom

12. In an atom of helium, where are the electrons and where are the protons?

electrons are ~~in~~ in most of the outer space, moving the protons are confined to the nucleus at the center

This table contains helpful information for solving the next five questions.

1 H hydrogen 1.01																	2 He helium 4.00
3 Li lithium 6.94	4 Be beryllium 9.01											5 B boron 10.81	6 C carbon 12.01	7 N nitrogen 14.01	8 O oxygen 16.00	9 F fluorine 19.00	10 Ne neon 20.18
11 Na sodium 23.00	12 Mg magnesium 24.31											13 Al aluminum 26.98	14 Si silicon 28.09	15 P phosphorus 30.97	16 S sulfur 32.06	17 Cl chlorine 35.45	18 Ar argon 39.95
19 K potassium 39.10	20 Ca calcium 40.08	21 Sc scandium 44.96	22 Ti titanium 47.90	23 V vanadium 50.94	24 Cr chromium 52.00	25 Mn manganese 54.94	26 Fe iron 55.85	27 Co cobalt 58.93	28 Ni nickel 58.71	29 Cu copper 63.55	30 Zn zinc 65.38	31 Ga gallium 69.72	32 Ge germanium 72.59	33 As arsenic 74.92	34 Se selenium 78.96	35 Br bromine 79.90	36 Kr krypton 83.80

13. How many electrons are in a neutral atom of fluorine?

nine

14. How many protons are in a neutral atom of neon?

ten protons

15. Is fluorine a metal or non-metal?

non metal

16. Is helium an element or a compound?

an element

17. When carbon forms compounds, how many bonds does it usually make?

four

$\frac{63}{90}$ for # 11, 13, 15