

Tutorial 0010

A. Mole Questions 1

1. 10.0 mole Li = ___ g Li
2. 3.00 mole of Mg = ___ atoms Mg
3. 5.00×10^{23} atoms C = ___ mole C
4. 7.25 g Cu = ___ atoms Cu
5. 2.22×10^{26} atoms Pb = ___ mole Pb
6. 15.0 mole K = ___ atoms K
7. 4.65×10^{22} atoms S = ___ mole S
8. 333 g Mg = ___ mole Mg
9. 48.0×10^{23} atoms O = ___ grams O
10. 0.250 mole Br = ___ atoms Br
11. Define mole.
12. Define molar mass.
13. State Avogadro's number.

Mole Questions 2

1. 1.77×10^{28} atoms Cu = ___ mole Cu = ___ grams Cu
2. 44.0 g Ca = ___ mole Ca = ___ atoms Ca
3. 0.775 mole K = ___ atoms K = ___ g K
4. 1.99×10^{25} molecules of H_2O = ___ moles H_2O
5. 0.667 moles Li = ___ g Li
6. 5.88 moles Na = ___ atoms Na
7. 15.0×10^{23} atoms Zn = ___ g Zn
8. 878 g O = ___ atoms O
9. 125 g Cr = ___ atoms Cr
10. 4.75×10^6 atoms Al = ___ g Al

Mole Questions 3

1. 5.00 mole Zn = ___ atoms Zn
2. 2.00×10^{47} molecules H_2O = ___ mole H_2O
3. 1.50 mole Ca = ___ grams Ca
4. 6.75 mole Cu = ___ atoms Cu
5. 1.75×10^{15} atoms K = ___ mole K
6. 5.00g C = ___ atoms C

7. 45.9 g Pb = ____ mole Pb
8. 3.01×10^{23} molecules CO_2 = ____ mole CO_2
9. 4.25×10^{22} atoms Ni = ____ g Ni
10. 9.50 g Li = ____ atoms Li
11. 0.250 mole Si = ____ atoms Si
12. 2.30 mole Mg = ____ g Mg
13. 2.50×10^{25} atoms Au = ____ mole Au
14. 105 g Be = ____ mole Be
15. 75.0 g S = ____ atoms S
16. Which contains a greater number of atoms, 2.0 moles of Zn or 2.0 moles Cu?
17. Which has a greater mass, 2.0 moles of Zn or 2.0 moles Cu?
18. A mole of moles digs a mole of holes. How many holes does each mole dig?