

MOLE WORKSHEET #1

1. How many moles are there in 143 bananas ?
2. How many moles of bicycles are there in 63 bicycles ?
3. How many cars are there in 2.5 moles of cars ?
4. How many wheels are there in 2.6 moles of bicycles ?
5. How many moles of wheels are there in 4.5 moles of cars ?
6. How many molecules are there in 3.6 moles of molecules ?
7. How many moles of molecules are there in 4.3×10^{23} molecules ?
8. How many atoms are there in one molecule of aluminum bromide ?
9. How many atoms are there in 43 molecules of calcium sulphate ?
10. How many moles of atoms are there in 3.8 moles of water molecules ?
11. How many molecules of hydrogen sulfate can be produced from 4.3 moles of hydrogen atoms ?
12. How many oxygen atoms are there in 3.8 moles of water ?

PART B

13. What is the mass of one mole of water ?
14. What is the GMM of lead II acetate ?
15. How many moles are there in 43 g of sodium atoms ?
16. How many moles are there in 146 g of hydrogen ?
17. What is the mass of 6.5 moles of copper atoms ?
18. What is the mass of 4.8 moles of silver atoms ?
19. What is the atomic mass of element XX if 3.6 moles of the substance has a mass of 192 grams ?
20. How many moles are there in 48 grams of water ?
21. How many grams are there in 0.361 moles of nitric acid ?
22. What is the GMM of a substance if 43 grams is the mass of 1.4 moles ?
23. What is the mass of 4.50 moles of magnesium chloride ?
24. What is the mass of 0.0630 moles of potassium phosphate ?
25. What is the mass of 0.0630×10^{-4} moles of aluminum sulphate ?
26. What is the number of moles in 6.6 grams of silicon tetrachloride ?
27. How many atoms are there in 43 molecules of hydrogen sulphate ?

Answers:

1. 2.38×10^{-22} mol
 2. 1.0×10^{-22} mol
 3. 1.5×10^{24} cars
 4. 3.1×10^{24} wheels
 5. 18 mols
 6. 2.2×10^{24} molecules
 7. 7.1×10^{-1} mol
 8. 4 atoms
 9. 258 atoms
 10. 11 mols (11.4 mols)
 11. 1.3×10^{24} molecules
 12. 2.3×10^{24} oxygen atoms
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13. 18 g
 14. 325.2 g
 15. 1.9 mol
 16. 73 mol
 17. 410 g (412.8 g)
 18. 520 g (517.9 g)
 19. 53 g (53.3 g)
 20. 2.7 mol
 21. 22.7 g
 22. 31 g/mol
 23. 429 g
 24. 13.4 g
 25. 2.16×10^{-3} g
 26. 3.9×10^{-2} mol
 27. 301 atoms