Molar Mass

Activity 1: Atom Counting

Question Group 1

Question 1

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $ZnCO_3$.

Question 2

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $CaCO_3$.

Question 3

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $BaCO_3$.

Question Group 2

Question 4

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula Na_2SO_4.

Question 5

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula K_2SO_4.

Question 6

Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula Ag_2SO_4.

Question Group 3

Question 7
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Al_2(SO_4)_3$.

Question 8
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Al_2(CO_3)_3$.

Question 9
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Fe_2(SO_4)_3$.

Question Group 4
Question 10
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Ca_3(PO_4)_2$.

Question 11
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Ba_3(PO_4)_2$.

Question 12
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $Zn_3(PO_4)_2$.

Question Group 5
Question 13
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $(NH_4)_2CO_3$.

Question 14
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $(NH_4)_2SO_4$.

Question 15
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula $(NH_4)_2C_2O_4$.

Question Group 6
Question 16
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula C_2H_5OH.

Question 17
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula C_3H_7OH.

Question 18
Counting the number of atoms of each element in a formula is a prerequisite skill to determining the molar mass. Count the number of atoms of each element in the formula C_4H_9OH.

Activity 2: Molar Mass of Compounds
Question Group 7
Question 19
Use the structure of the following table to determine the molar mass of the compound $Al_2(SO_4)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Al			
S			
O			
Molar Mass of Compound			

Question 20
Use the structure of the following table to determine the molar mass of the compound $Al_2(CO_3)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Al			
C			
O			
Molar Mass of Compound			

Question 21

Use the structure of the following table to determine the molar mass of the compound $Fe_2(C_2O_4)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Al		➡	
C		➡	
O		➡	
Molar Mass of Compound		➡	

Question Group 8

Question 22

Use the structure of the following table to determine the molar mass of the compound $Ca_3(PO_4)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ca		➡	
P		➡	
O		➡	
Molar Mass of Compound		➡	

Question 23
Use the structure of the following table to determine the molar mass of the compound $Ba_3(PO_4)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ba			
P			
O			
Molar Mass of Compound			

Question 24
Use the structure of the following table to determine the molar mass of the compound $Cu_3(PO_4)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Cu			
P			
O			
Molar Mass of Compound			

Question Group 9
Question 25
Use the structure of the following table to determine the molar mass of the compound $(NH_4)_2SO_4$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
N		➡	
H		➡	
S		➡	
O		➡	
Molar Mass of Compound		➡	

Question 26
Use the structure of the following table to determine the molar mass of the compound $(NH_4)_2CO_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
N		➡	
H		➡	
C		➡	
O		➡	
Molar Mass of Compound		➡	

Question 27

Use the structure of the following table to determine the molar mass of the compound $(NH_4)_2SO_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
N			
H			
S			
O			
Molar Mass of Compound			

Question Group 10

Question 28

Use the structure of the following table to determine the molar mass of the compound $Ca(NO_3)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ca			
N			
O			
Molar Mass of Compound			

Question 29
Use the structure of the following table to determine the molar mass of the compound $Al(NO_2)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Al		➡	
N		➡	
O		➡	
Molar Mass of Compound		➡	

Question 30
Use the structure of the following table to determine the molar mass of the compound $Fe(ClO_3)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Fe		➡	
Cl		➡	
O		➡	
Molar Mass of Compound		➡	

Activity 3: Out of This World
Question Group 11
Question 31
It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Tp_3(Xo_2Lb_5)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Tp		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question 32
It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Tp_2(Xo_3Lb_4)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Tp		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question 33

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Tp_4(Xo_5Lb_3)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Tp		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question Group 12

Question 34

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(Ax_2Op_3)_2(XoLb_2)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ax		➡	
Op		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question 35

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(Ax_3Op)_3(Xo_2Lb_5)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ax		➡	
Op		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question 36

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(AxOp_3)_4(XoLb_2)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Ax		➡	
Op		➡	
Xo		➡	
Lb		➡	
Molar Mass of Compound		➡	

Question Group 13
Question 37
It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Cp_2(Bz_2Et_5)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Cp			
Bz			
Et			
Molar Mass of Compound			

Question 38
It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Cp_3(Bz_3Et_4)_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Cp			
Bz			
Et			
Molar Mass of Compound			

Question 39

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $Cp_4(Bz_3Et_2)_3$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Cp		➡	
Bz		➡	
Et		➡	
Molar Mass of Compound		➡	

Question Group 14

Question 40

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(Fp_4Gr_3)_3Tr_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Fp		➡	
Gr		➡	
Tr		➡	
Molar Mass of Compound		➡	

Question 41

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(Fp_3Gr_2)_3Tr_2$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Fp		➡	
Gr		➡	
Tr		➡	
Molar Mass of Compound		➡	

Question 42

It's a long story, but ... Elements are quite different on the planet Mayedup. The symbols, the names, and the atomic mass values are all different than those of planet Earth. The best, most up-to-date, and only existing Periodic Table for elements on planet Mayedup can be found here on this site. Use the table to determine the molar mass of the compound $(Fp_3Gr_2)_2Tr_5$.

Element	Total # of Atoms		Mass of All Atoms (g/mol)
Fp		➡	
Gr		➡	
Tr		➡	
Molar Mass of Compound		➡	