Atom Counting

Apprentice Difficulty Level
Question Group 1
Question 1

How many total atoms of each element are present in the following formulas?

3 CaCl₂

Question 2

How many total atoms of each element are present in the following formulas?

2 AICI₃

Question 3

How many total atoms of each element are present in the following formulas?

4 Na₂O

Question Group 2

Question 4

How many total atoms of each element are present in the following formulas?

2 NH₃

Question 5

How many total atoms of each element are present in the following formulas?

2 PCI₅

Question 6

How many total atoms of each element are present in the following formulas?

3 CO₂

Question Group 3

Question 7

How many total atoms of each element are present in the following formulas?

2 H₂SO₄

Question 8

How many total atoms of each element are present in the following formulas?

3 Na₂CO₃

Question 9

How many total atoms of each element are present in the following formulas?

3 H₂CO₃

Question Group 4 Question 10

How many total atoms of each element are present in the following formulas?

4 KCIO₃

Question 11

How many total atoms of each element are present in the following formulas?

3 NH₄Cl

Question 12

How many total atoms of each element are present in the following formulas?

5 Na₂SO₄

Master Difficulty Level Question Group 5 Question 13

How many total atoms of each element are present in the following formulas?

$$2 H_2O + 3 CO_2$$

Question 14

How many total atoms of each element are present in the following formulas?

$$5 H_2O + 4 CO_2$$

Question 15

How many total atoms of each element are present in the following formulas?

$$4 H_2O + 3 CO_2$$

Question Group 6

Question 16

How many total atoms of each element are present in the following formulas?

$$3 H_2SO_4 + 5 H_2O$$

Question 17

How many total atoms of each element are present in the following formulas?

Question 18

Question Group 7

Question 19

How many total atoms of each element are present in the following formulas?

$$2 Al_2(SO_4)_3 + 3 Al_2O_3$$

Question 20

How many total atoms of each element are present in the following formulas?

$$3 \text{ Al}_2(SO_4)_3 + 5 \text{ Al}_2O_3$$

Question 21

How many total atoms of each element are present in the following formulas?

$$4 \text{ Al}_2(SO_4)_3 + 2 \text{ Al}_2O_3$$

Question Group 8

Question 22

How many total atoms of each element are present in the following formulas?

$$2 Ca_3(PO_4)_2 + 5 CaO$$

Question 123

How many total atoms of each element are present in the following formulas?

Question 24

Wizard Difficulty Level Question Group 9 Question 25

How many total atoms of each element are present in the following formulas?

$$2 H_2O + 4 H_3PO_4 + 3 P_4O_{10}$$

Question 26

How many total atoms of each element are present in the following formulas?

$$3 H_2O + 2 H_3PO_4 + 4 P_4O_{10}$$

Question 27

How many total atoms of each element are present in the following formulas?

$$4 H_2O + 3 H_3PO_4 + 2 P_4O_{10}$$

Question Group 10

Question 28

How many total atoms of each element are present in the following formulas?

Question 29

How many total atoms of each element are present in the following formulas?

$$3 H_2SO_4 + 4 SO_2 + 5 H_2O_2$$

Question 30

$$5 H_2SO_4 + 3 SO_2 + 2 H_2O_2$$

Question Group 11

Question 31

How many total atoms of each element are present in the following formulas?

$$4 \text{ CaCl}_2 + 2 \text{ Ca}(\text{CIO}_4)_2 + 5 \text{ Ca}(\text{OH})_2$$

Question 32

How many total atoms of each element are present in the following formulas?

$$3 \text{ CaCl}_2 + 4 \text{ Ca(ClO}_3)_2 + 2 \text{ Ca(OH)}_2$$

Question 33

How many total atoms of each element are present in the following formulas?

$$5 \text{ CaCl}_2 + 3 \text{ Ca}(\text{ClO}_4)_2 + 4 \text{ Ca}(\text{OH})_2$$

Question Group 12

Question 34

How many total atoms of each element are present in the following formulas?

$$5 \text{ AICI}_3 + 2 \text{ AI}_2(SO_4)_3 + 3 \text{ H}_2SO_3$$

Question 35

How many total atoms of each element are present in the following formulas?

Question 36

$$3 \text{ AICl}_3 + 4 \text{ Al}_2(SO_4)_3 + 5 \text{ H}_2SO_4$$