Moles Questions

1 Calculate the number of moles in each of the following.

(a) 32 g of O_2

(b) 11.5 g of Na

(c) 36 g of Mg

(d) 71 g of Cl_2

(e) 21 g of Li

(f) 10 g of Ar

(g) 58.5 g of K

(h) 18 g of C

(i) 84 g of Si

(j) 67.5 g of Al

2 Calculate the mass of each of the following.

(a) 2 mol of O_2

(b) 0.5 mol of Mg

(c) 2 mol of N_2

(d) 1.5 mol of Ne

(e) 3 mol of S

(f) 0.25 mol of Ca

(g) 0.5 mol of Mg

(h) 0.75 mol of S

(i) 1.5 mol of Na

(j) 3 mol of C

3 Calculate the relative atomic mass of each of the following.

(a) 0.1 mol of a metal has a mass of 2.3 g

(b) 0.25 mol of a metal has a mass of 10 g

(c) 0.6 mol of a metal has a mass of 14.4 g

(d) 0.1 mol of a metal has a mass of 5.2 g

(e) 0.3 mol of a metal has a mass of 7.2 g

4 Calculate the relative molecular mass of each of the following.

(a) 0.1 mol of a compound has a mass of 4.4 g

(b) 0.1 mol of a compound has a mass of 3.2 g

(c) 0.05 mol of a compound has a mass of 3.2 g

(d) 0.2 mol of a compound has a mass of 5.6 g

(e) 0.2 mol of a compound has a mass of 6.4 g