

Stoichiometry

1 Marshmallow + 4 choc chips + 2 crackers
→ 1 smooore

If I have 6 marshmallow, 24 chips and 12 crackers, how many smoores can I make?

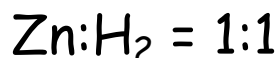
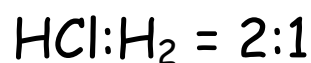
Coefficients in balanced chemical equations tell you the quantities needed for a reaction, and how much product is produced!



Coefficients can be read as either number of molecules or moles.

Mole Ratio: a ratio between the coefficients in an equation.

The mole ratios for the above equation are:



You can use mole ratios to find the amount of reactants needed or predict the amount of product made.

*Write the ratio as a conversion factor as the unknown/known.



- a) If 9 mol of MgCl_2 is consumed, how many mol NaCl is produced?
- b) How many mol of Na_3P react?
- c) If 3.2 mol of Na_3P react, what mass of Mg_3P_2 is produced?
- d) If 10 g of NaCl was produced, how many moles of Na_3P was reacted?