

Problem 1.3

How many phases are there in a system that consists of (a) $\text{CaCO}_3(s)$, $\text{CaO}(s)$, and $\text{CO}_2(g)$; (b) three pieces of solid AgBr , one piece of solid AgCl , and a saturated aqueous solution of these salts.

Solution

A phase is a homogeneous part of a system.

- (a) Three phases (The $\text{CaCO}_3(s)$ counts as one, the $\text{CaO}(s)$ counts as one, and the $\text{CO}_2(g)$ counts as one.)
- (b) Three phases (The AgBr counts as one, the AgCl counts as one, and the saturated solution of these salts counts as one.)