THERMODYNAMICS

ZEROTH LAW OF THERMODYNAMICS

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When two systems, A and B, are each in agreement with a third system, C, it means they're all at the same temperature. This basic idea is what helps us understand temperature. In simpler terms, if A and B are as hot or cold as C, then A and B are also as hot or cold as each other.

Let's picture three systems: A, B, and C, separated by two types of walls:

(i) An "adiabatic wall" that doesn't let heat or stuff move between A and B.

(ii) A "diathermic wall" that allows heat to go back and forth between A and C, and between B and C.

At first, A, B, and C are at different temperatures. But as time goes on, A and C, as well as B and C, end up having the same temperature because heat moves between them. Even though A and B don't directly exchange heat, they still reach the same temperature over time, just as the law predicts.

