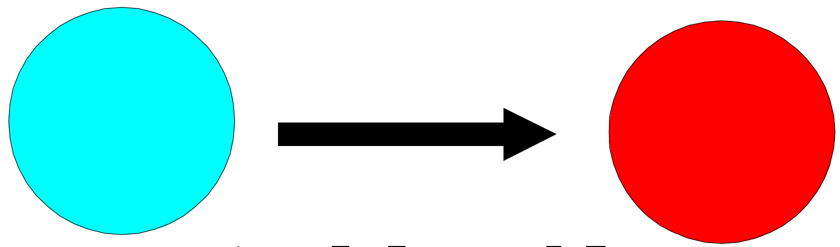


$\phi : M \to N$

M N

A MAP IS A RELATIONSHIP WHICH ASSIGNS EXACTLY ONE ELEMENT OF N TO EACH ELEMENT OF M

- M IS CALLED THE DOMAIN
- THE IMAGE $\phi(M)$ ARE THE POINTS IN N WHICH M IS MAPPED INTO
- THE SET OF POINTS IN M MAPPED INTO $U \subseteq N$ IS CALLED THE PRE–IMAGE ϕ^{-1}

TYPES OF MAP

- ONE TO ONE or INJECTIVE

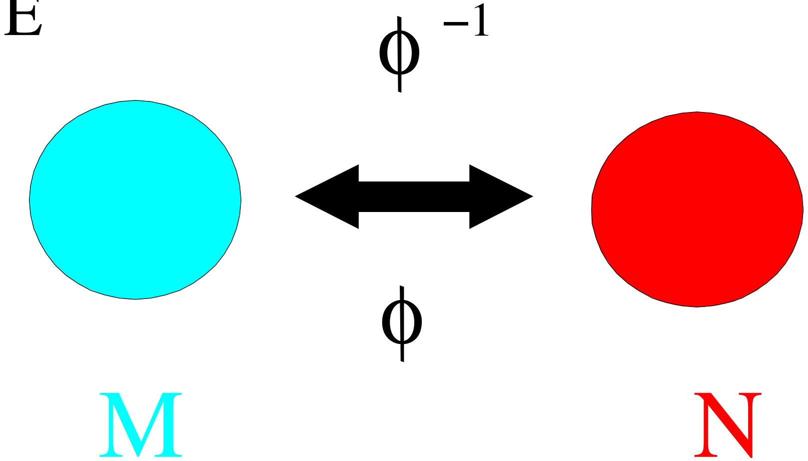
$$\phi(x1) = \phi(x2) \quad -> \quad x1=x2$$

- ONTO or SURJECTIVE

$$M = \phi^{-1}(N)$$

- INVERTIBLE or BIJECTIVE

THERE EXISTS
AN INVERSE



COMPOSITION