

# 1 | **day one!**

## 1.1 | **relations**

### 1.1.1 | **equivalence relation**

1. reflexive, transitive, symmetric
2. a relation on a set

### 1.1.2 | **order relation**

like, are we ordering objects?

1. reflexive? not necessarily,  $\leq$
2. asymmetric? it's antisymmetric
3. transitive!

## 1.2 | **cardinality**

## 1.3 | **orderings**