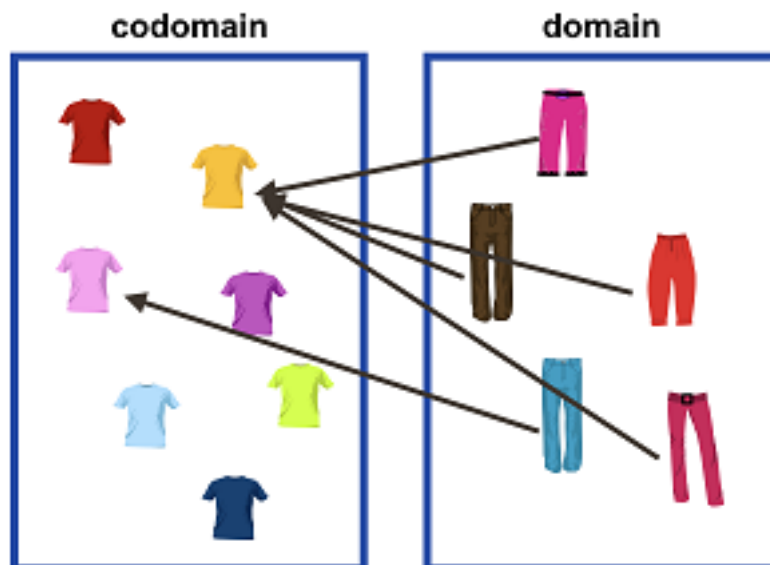


Definition 1. The relation *cardinal* is defined via the map below.



The domain, codomain, and pairs are all shown.

Exercise 1 How many items are in the domain of cardinal?

Exercise 2 How many pairs are in cardinal?

Exercise 3 How many items are in the codomain of cardinal?

Exercise 4 Is every domain member paired with exactly one codomain member?

Multiple Choice:

- (a) Yes ✓
- (b) No

Exercise 5 Is every codomain member paired with exactly one domain member?

Multiple Choice:

- (a) Yes
 - (b) No ✓
-

Exercise 6 *Is the cardinal relation a function?*

Multiple Choice:

- (a) Yes ✓
 - (b) No
-