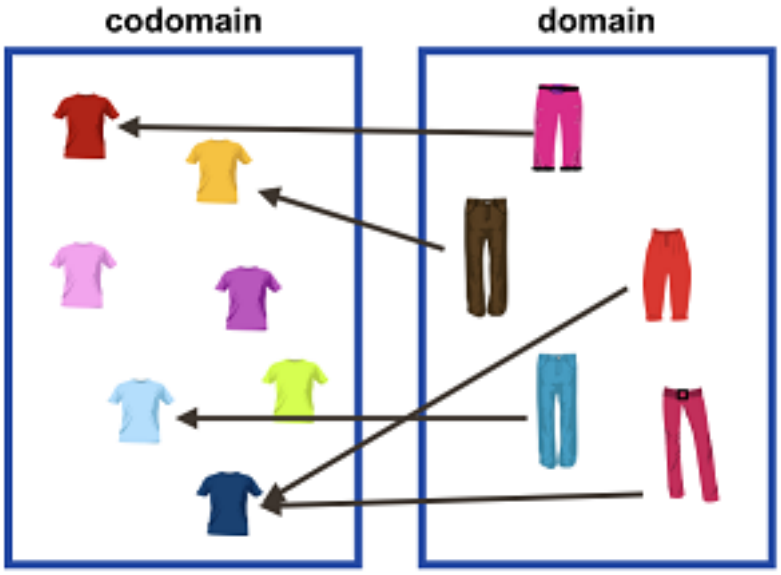
Definition 1. *The map below defines the* ***Outfit*** *relation.*



The ***Outfit*** *relation includes three sets:*

- *The domain consists of 5 pairs of pants identified in the map.*
- *The codomain consists of the 7 shirts identified in the map.*
- *A set of ordered pairs. The pair (pants, shirt) is a member of the Outfit relation if the pants are associated to the shirt with an arrow.*

Exercise 1 *(*  ,  *) ∈ Outfit*

Multiple Choice:

(a) *True*

(b) *False*✓

Feedback (attempt): *Outfit contains pairs ordered as (pants, shirt).*

Exercise 2 *Is Outfit a well-defined function?*

Multiple Choice:

(a) *Yes* ✓

(b) *No*

Feedback (attempt): *Each domain pants is associated with exactly one codomain shirt.*

Exercise 3 *How many items are in the range of Outfit?* $\boxed{4}$

Feedback (attempt): *All arrows point to one of four codomain shirt.*

Exercise 4 *Outfit(*  *) = Outfit(*  *)*

Multiple Choice:

(a) *True* ✓

(b) *False*

Feedback (attempt): *Both expressions evaluate to the same codomain value. They are equal.*

Exercise 5 *Outfit(*  *) = Outfit(*  *)*

Multiple Choice:

(a) *True*

(b) *False* ✓

Feedback (attempt): *The expressions evaluate to different shirts.*

Definition 2. *A function is said to be* ***onto*** *if the range equals the codomain. In other words, if every item in the codomain appears as a partner in some pair.*

Exercise 6 *Is Outift an onto function?*

Multiple Choice:

(a) *Yes*

(b) *No* ✓

Feedback (attempt): *Some shirts in the codomain are not included in function pairs, like the pink shirt.*