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Q4. Consider the following five relations on the set $A = \{1, 2, 3, 4, 5\}$

$R1 = \{(1, 1), (2, 2), (2, 3), (1, 3), (4, 4), (5, 5)\}$

$R2 = \{(1, 1), (1, 2), (2, 1), (2, 2), (3, 3), (4, 4)\}$

$R3 = \{(1, 4), (2, 1), (1, 5)\}$

$R4 = \emptyset$, the empty relation

R5

$= A \times A$, the universal relation

Determine

?which of the relations are reflexive

R1 isn't reflexive because $(3, 3)$ isn't included

R2 isn't reflexive because 5 is in set A but not in R2 and $(5, 5)$ is missing

R3 not a reflexive because there's not any reflexive number in it like $(4, 4)$

R4 not a reflexive because there's not any pair in it

R5 is a reflexive because it is a relation with the same set so all the pairs inside it like $(1, 1)$ and $(2, 2)$...