

REFLEXIVE

Show the code works for the relation $\{(1,1), (4,4), (2,2), (3,3)\}$ on the set $\{1,2,3,4\}$.

1a. $R = \{(4, 4), (1, 1), (3, 3), (2, 2)\}$

1b. R is reflexive

1c. N/A

Show the code works for the relation $\{(a,a), (c,c)\}$ on the set $\{a,b,c,d\}$.

1a. $R = \{('c', 'c'), ('a', 'a')\}$

1b. R is not reflexive

1c. $\{('b', 'b'), ('a', 'a'), ('c', 'c'), ('d', 'd')\}$

SYMMETRIC

Show the code works for the relation $\{(1,2), (4,4), (2,1), (3,3)\}$ on the set $\{1,2,3,4\}$.

2a. $R = \{(4, 4), (1, 2), (3, 3), (2, 1)\}$

2b. R is symmetric

2c. N/A

Show the code works for the relation $\{(1,2), (3,3)\}$ on the set $\{1,2,3,4\}$

2a. $R = \{(1, 2), (3, 3)\}$

2b. R is not symmetric

2c. $\{(3, 3), (1, 2), (2, 1)\}$

TRANSITIVE

Show the code works for the relation $\{(a,b), (d,d), (b,c), (a,c)\}$ on the set $\{a,b,c,d\}$.

3a. $R = \{('a', 'c'), ('b', 'c'), ('d', 'd'), ('a', 'b')\}$

3b. R is transitive

3c. N/A

Show the code works for the relation $\{(1,1),(1,3),(2,2),(3,1),(3,2)\}$ on the set $\{1,2,3\}$.

3a. $R = \{(2, 2), (3, 1), (1, 1), (1, 3), (3, 2)\}$

3b. R is not transitive

3c. $\{(1, 2), (3, 3), (2, 2), (3, 1), (1, 1), (1, 3), (3, 2)\}$

EQUIVALENCE

Show the code works for the relation $\{(1,1),(2,2),(2,3)\}$ on the set $\{1,2,3\}$.

4a. $R = \{(2, 3), (1, 1), (2, 2)\}$

4b. R is not an equivalence relation

4c. R is not reflexive

4c. R is not symmetric

Show the code works for the relation $\{(a,a),(b,b),(c,c),(b,c),(c,b)\}$ on the set $\{a,b,c\}$.

4a. $R = \{('b', 'b'), ('b', 'c'), ('a', 'a'), ('c', 'b'), ('c', 'c')\}$

4b. R is an equivalence relation

4c. N/A

POSET

Show the code works for the relation $\{(1,1), (1,2), (2,2), (3,3), (4,1), (4,2), (4,4)\}$ on the set $\{1, 2, 3, 4\}$.

5a. $S = \{1, 2, 3, 4\}$

5b. $R = \{(4, 4), (1, 2), (3, 3), (2, 2), (1, 1), (4, 1), (4, 2)\}$

5b. (S,R) is a poset

5c. N/A

Show the code works for the relation $\{(0, 0), (0, 1), (0, 2), (0, 3), (1, 0), (1, 1), (1, 2), (1, 3), (2, 0), (2, 2), (3, 3)\}$ on the set $\{0, 1, 2, 3\}$.

5a. $S = \{0, 1, 2, 3\}$

5b. $R = \{(0, 1), (1, 2), (0, 0), (1, 1), (0, 3), (2, 0), (0, 2), (3, 3), (2, 2), (1, 0), (1, 3)\}$

5b. (S,R) is not a poset

5c. (S,R) is not antisymmetric

5c. (S,R) is not transitive

PS C:\Users\chase\OneDrive\Documents\Front End\javascript-basic-projects-master\javascript-basic-projects-master>