You, 47 seconds ago | 1 author (You)

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"""
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PROBLEMS OUTPUT TERMINAL JUPYTER GITLENS

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Python De...

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Part 1 - Reflexive
1.d
For relationship R= {(4, 4), (1, 1), (3, 3), (2, 2)} on the set {1, 2, 3, 4}
a) R order pair =  [(4, 4), (1, 1), (3, 3), (2, 2)]
b) R is reflexive

1.e
For relationship R= {('a', 'a'), ('c', 'c')} on the set {'d', 'c', 'a', 'b'}
a) R order pair =  [('a', 'a'), ('c', 'c')]
b) R is not reflexive
c) R* = [('a', 'a'), ('c', 'c'), ('d', 'd'), ('b', 'b')]

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Part 2 - Symmetric
2.D
For relationship R= {(4, 4), (1, 2), (3, 3), (2, 1)} on the set {1, 2, 3, 4}
a) R order pair =  [(4, 4), (1, 2), (2, 1), (1, 1), (3, 3), (2, 2)]
b) R is symmetric

2.E
For relationship R= {(1, 2), (3, 3)} on the set {1, 2, 3, 4}
a) R order pair =  [(1, 2), (2, 1), (1, 1), (3, 3), (2, 2)]
b) R is not symmetric
c) R* = [(1, 2), (3, 3), (2, 1)]

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Part 3 - Transitive
3.D
For relationship R= {('d', 'd'), ('a', 'b'), ('b', 'c'), ('a', 'c')} on the set {'d', 'c', 'a', 'b'}
a) R order pair =  [('b', 'b'), ('c', 'b'), ('a', 'b'), ('a', 'c'), ('b', 'a'), ('d', 'd'), ('c', 'a'), ('a', 'a'), ('b', 'c'), ('c', 'c')]
b) R is transitive

3.E
For relationship R= {(2, 2), (3, 1), (1, 1), (1, 3), (3, 2)} on the set {1, 2, 3}
a) R order pair =  [(3, 1), (1, 1), (2, 3), (3, 3), (2, 2), (3, 2), (1, 3)]
b) R is not transitive
c) R* = [(1, 2), (3, 1), (1, 1), (3, 3), (2, 2), (3, 2), (1, 3)]

------------------------------------------------------------------------

Part 4 - Equivalence
4.D
For relationship R= {(2, 3), (1, 1), (2, 2)} on the set {1, 2, 3}
a) R order pair =  [(1, 1), (2, 3), (3, 3), (2, 2), (3, 2)]
b) R is not an equivalence relation, because it is not reflexive

4.E
For relationship R= {('b', 'b'), ('c', 'b'), ('a', 'a'), ('b', 'c'), ('c', 'c')} on the set {'c', 'a', 'b'}
a) R order pair =  [('b', 'b'), ('c', 'b'), ('c', 'c'), ('a', 'a'), ('b', 'c')]
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b) R is symmetric

2.E
For relationship R= {(1, 2), (3, 3)} on the set {1, 2, 3, 4}
a) R order pair =  [(1, 2), (2, 1), (1, 1), (3, 3), (2, 2)]
b) R is not symmetric
c) R* = [(1, 2), (3, 3), (2, 1)]

------------------------------------------------------------------------

Part 3 - Transitive
3.D
For relationship R= {('d', 'd'), ('a', 'b'), ('b', 'c'), ('a', 'c')} on the set {'d', 'c', 'a', 'b'}
a) R order pair =  [('b', 'b'), ('c', 'b'), ('a', 'b'), ('a', 'c'), ('b', 'a'), ('d', 'd'), ('c', 'a'), ('a', 'a'), ('b', 'c'), ('c', 'c')]
b) R is transitive

3.E
For relationship R= {(2, 2), (3, 1), (1, 1), (1, 3), (3, 2)} on the set {1, 2, 3}
a) R order pair =  [(3, 1), (1, 1), (2, 3), (3, 3), (2, 2), (3, 2), (1, 3)]
b) R is not transitive
c) R* = [(1, 2), (3, 1), (1, 1), (3, 3), (2, 2), (3, 2), (1, 3)]

------------------------------------------------------------------------

Part 4 - Equivalence
4.D
For relationship R= {(2, 3), (1, 1), (2, 2)} on the set {1, 2, 3}
a) R order pair =  [(1, 1), (2, 3), (3, 3), (2, 2), (3, 2)]
b) R is not an equivalence relation, because it is not reflexive

4.E
For relationship R= {('b', 'b'), ('c', 'b'), ('a', 'a'), ('b', 'c'), ('c', 'c')} on the set {'c', 'a', 'b'}
a) R order pair =  [('b', 'b'), ('c', 'b'), ('c', 'c'), ('a', 'a'), ('b', 'c')]
b) R is an equivalence relation

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Part 5 - Poset
5.D
For relationship R= {(4, 4), (1, 2), (3, 3), (2, 2), (1, 1), (4, 1), (4, 2)} on the set {1, 2, 3, 4}
a) S = {1, 2, 3, 4}
b) R = {(4, 4), (1, 2), (3, 3), (2, 2), (1, 1), (4, 1), (4, 2)}
c) R is a poset

5.E
For relationship R= {(0, 1), (1, 2), (0, 0), (1, 1), (0, 3), (2, 0), (0, 2), (3, 3), (2, 2), (1, 0), (1, 3)} on the set {0, 1, 2, 3}
a) S = {0, 1, 2, 3}
b) R = {(0, 1), (1, 2), (0, 0), (1, 1), (0, 3), (2, 0), (0, 2), (3, 3), (2, 2), (1, 0), (1, 3)}
c) R is not a poset, because it is not transitive

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MacBook-Pro-cua-Nguyen:GitHub zensmac$
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