```
R1 = {(1, 1), (3, 3), (2, 2)}
R2 = {(1, 1), (1, 2), (1, 3), (1, 4)}

1. a) Union of R1 and R2
{(3, 3), (1, 2), (2, 2), (1, 1), (1, 3), (1, 4)}

1. b) Intersection of R1 and R2
{(1, 1)}

1. c) R1 minus R2
{(3, 3), (2, 2)}

1. c) R2 minus R1
{(1, 2), (1, 3), (1, 4)}


S = {(1, 0), (4, 1), (3, 1), (3, 2), (2, 0)}
R = {(2, 3), (3, 4), (3, 1), (1, 1), (1, 4)}

2. Composite of S and R
{(2, 1), (3, 1), (1, 1), (3, 0), (2, 2), (1, 0)}


R = {(2, 3), (3, 4), (3, 1), (1, 1), (1, 4)}

3. R^2
{(2, 4), (2, 1), (3, 4), (3, 1), (1, 1), (1, 4)}


4. a) R as a Set of Ordered Pairs
R = {(5, -5), (-10, 10), (-3, 3), (-4, 4), (-1, 1), (3, -3), (4, -4), (10, -10),
(-6, 6), (-5, 5), (2, -2), (-7, 7), (8, -8), (9, -9), (0, 0), (1, -1), (6, -6),
(7, -7), (-9, 9), (-8, 8), (-2, 2)}

4. b) Is R Reflexive:
False

4. b) Is R Symmetric:
True

4. b) Is R Antisymmetric:
False

4. b) Is R Transitive:
False
```