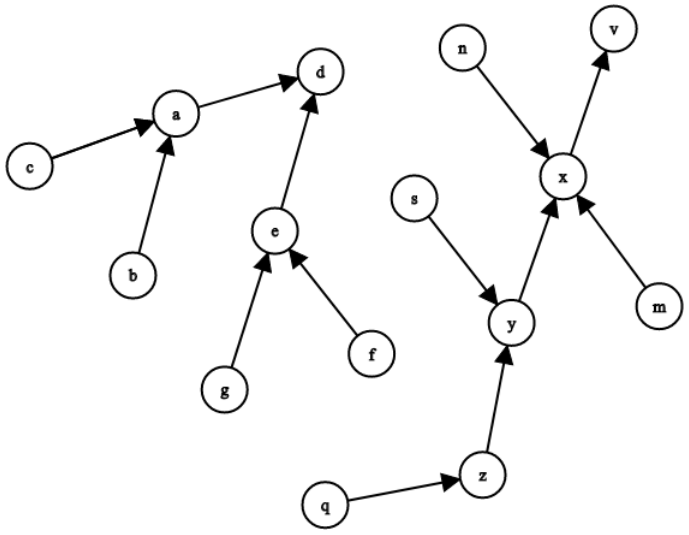
1 Disjoint Set



1. **Without compression** Show the result of :
   (a) find(g)
   (b) find(a)
   (c) find(y)
2. **With compression**, show the result and the final graph for each find. Assume each find starts with a fresh graph above.
   (a) find(q)
   (b) find(s)
   (c) find(f)
3. **With compression and quick union**, perform union and show the final graph for each union. Assume each find starts with a fresh graph above.
   (a) union(f, c)
   (b) union(y, e)
   (c) union(q, d)
4. **With compression and quick union**, write a pseudo-code for union(q, e).