

```

2 facts = {'a': True, 'b': True, 'c': False}
3 rules = [('d', ['a', 'b']), ('e', ['b', 'c']), ('f', ['d', 'e'])]
4
5 def forward_chaining(facts, rules, goal):
6     inferred = {k for k, v in facts.items() if v}
7     while True:
8         new = {h for h, b in rules if h not in inferred
9                and all(f in inferred for f in b)}
10        if not new: break
11        inferred |= new
12    return goal in inferred
13
14 for g in ['d', 'e', 'f']:
15     print(f"{g}: {'Achieved' if forward_chaining(facts,
16                                                    rules, g)
17           else 'Not achieved'}")

```

d: Achieved
e: Not achieved
f: Not achieved

[Program finished]