

```
facts = ['A', 'B', 'C']
rules = {
    'D': ['A', 'B'],
    'E': ['D', 'X'],
    'F': ['C']
}

def forward():
    known = set(facts)
    while True:
        added = False
        for head, body in rules.items():
            if head not in known and all(b in known for b in body):
                known.add(head)
                added = True
        if not added:
            break
    return known

known = forward()
for goal in ['F', 'E', 'D']:
    if goal in known:
        print(f"The goal {goal} can be achieved")
    else:
        print(f"The goal {goal} cannot be achieved")
```

Output

The goal F can be achieved

The goal E cannot be achieved

The goal D can be achieved

=== Code Execution Successful ===