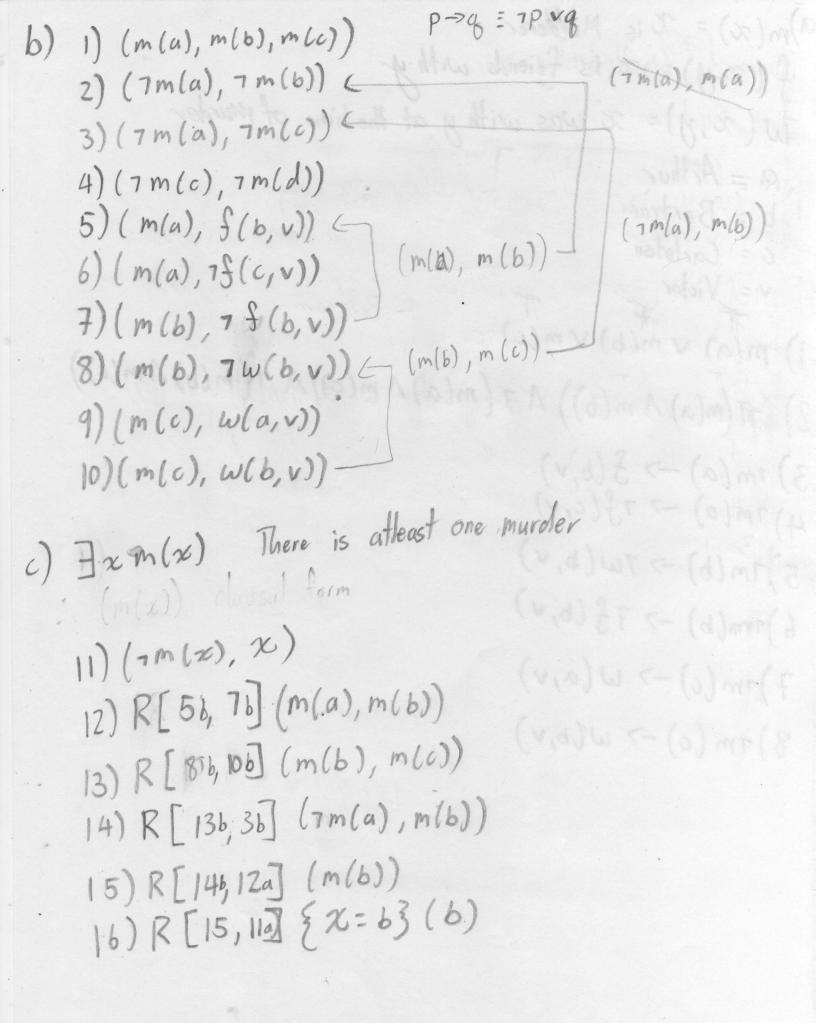
a)m(x) = x is Murderer f(x,y) = x is friends with y w(x,y) = x was with y at the time of Murder b = Bertram c = Carleton) m(a) vm(b) vm(c) or Bestian 2) (7(m(a) Am(b)) A7·(m(a) Am(c)) A7(m(b) Am(c)) 3) 7m(a) -> f(b,v) 4) 7m(a) -> 7f(c,v) 5)7m(b) -> 7w(b,v) 6) m(b) -> 7f(b, v) 7) m(c) -> W(a,v) 8) 7m (0) -> W(b, v)

> 5) R[14,124] (m(b)) (6) R[15,10] [X=6] (6)



```
d) remove:
   7 (m(a) 1 m(b)) 1 7 (m(a) 1 m(c)) 1 7 (m(b) 1 m(c))
   So remove (7m(a),7m(b))
               (7m(a), 7m(a))
               (7m(b), 7m(c))
                            1) (m(a), m(b), m(c))
  I= (D, D, Y, V)
                            2) (m(a), f(b, v)) <
 D= {a,b,c,v}
                            3) (mb), 7f(c,v))
\phi = \text{for every } x \in \mathcal{D}

\psi(m) = \{\alpha, c\}
                            4)(m(b), 7f(b,v))-
                             5) (m(b), 7w(b, v)) 9
                             6) (m(c), w(a,v))
  W(8)= {3
                             7) (m(c), w(b, v))
   Y(w) = { 3
  Psy : I = m(a) : I satisfy (1), (2), (3)
       : I = m(c) : I satisfy (6), (7)
        : I = 7 f (b, v) : I satisfy (4)
       : I = 7 W(b, v) : I satisfy (5)
```