0[12] Let \( a \) and \( b \) be binary variables. Using the proof format and laws in the textbook, prove
\[
a = (a \Rightarrow b) = a \land (a \Rightarrow b)
\]

1
Simplify (no proof)
(a)[3] \((1, 7–3) + 4 – (2, 6, 8)\)
(b)[3] \(\text{nat} + \text{nat}\)
(c)[3] \(\text{nat} – \text{nat}\)
(d)[3] \(\text{nat} \times \text{nat}\)
(e)[3] \((\text{nat}+1) + (\text{nat}+1)\)

2[15] Simplify (with proof)
\[
\forall y: \text{nat} \quad y = x+2 \lor y = x+1 \quad \Rightarrow \quad y > 5
\]