(1) What rule do we need to finish Bools?

(2) What rule do we need for less than?

(3) What rule do we need for function definition?

(4) Draw the AST for: \( \text{not} \ (\lt 5 \ 7) \)

\[
\begin{array}{c}
\text{[Bool]}_2 \\
\text{[Less Than]}
\end{array}
\]

(5) Now associate a type with each node above.

(6) Now draw the typing derivation tree that produces those types.