

# CS 365 — Programming Language Concepts

Axiomatic semantics

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# Axiomatic semantics

$$\frac{\overline{\{a \geq b\} \rightarrow \{a = m(a, b)\}} \quad \overline{\{a = m(a, b)\} \stackrel{\text{true}}{=} \{m = m(a, b)\}}}{\{a \geq b\} m = a; \{m = m(a, b)\}} \quad \frac{\overline{\{\sim a \geq b\} \rightarrow \{b = m(a, b)\}} \quad \overline{\{b = m(a, b)\} \stackrel{\text{true}}{=} \{m = m(a, b)\}}}{\{\sim a \geq b\} m = b; \{m = m(a, b)\}}$$

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`{true} if (a >= b) m = a else m = b {m = m(a, b)}`