

CMPSCI 266 - Formal Specification and Verification

More Verification Condition Generation Rules For Pascal

V7: Procedure call

$$\frac{\begin{array}{c} \text{P}\{\text{code}\}\text{IN}(p) \quad \begin{array}{c} X, V, K \\ A, E, K' \end{array} \quad \& \quad \begin{array}{c} \text{(OUT}(p)) \\ A, E, K' \end{array} \quad \begin{array}{c} X, V, K \\ A, E, K' \end{array} \rightarrow Q \end{array}}{\text{P}\{\text{code}; p(E, A)\}Q}$$

V8: Procedure Declaration

$$\frac{\text{P}\{\text{code}\}Q, \quad R1\{p(V, X)\}R2 \quad |- \quad R1\{S\}R2}{\text{P}\{\text{code}; \text{ENTRY } R1 \text{ EXIT } R2 \text{ procedure } p(V; \text{var } X); S\}Q}$$