Phrase "such that"

- Correct: definition such that condition on defined object

def.

- Ex: Let P be the set of all x such that x is prime

conditions → modifies

- Ex: Let $x(t)$ be the unique function such that x is a soln. to

$$\frac{dx}{dt} + 3x = 7 \quad \text{and} \quad x(0) = 1$$

- Non ex: Let $k = p_1 p_2 \cdots p_n + 1$ such that $p \mid k$

does not modify def of k

- Improvement. Let $k = p_1 p_2 \cdots p_n + 1$. Note that $p \mid k$ (or) Let p be the smallest prime factor of k.