335 Let a and b be rational variables. Define procedure P as

$$P \;=\; \langle x, y{:}\ rat\cdot \ \textbf{if}\ x{=}0\ \textbf{then}\ a{:=}\ x\ \textbf{else}\ a{:=}\ x{\times}y.\ \ a{:=}\ a{\times}y\ \textbf{fi}\rangle$$

(a) What is the exact precondition for $a'{=}b'$ to be refined by $P\ a\ (1/b)$?

(b) Discuss the difference between "eager" and "lazy" evaluation of arguments as they affect both the theory of programming and programming language implementation.

§ see "a Theory of Lazy Imperative Timing"