Given variable $p: [n^*bin] := [\perp; \perp; (n-2)^*T]$, the following program is the sieve of Eratosthenes for determining if a number is prime.

$$\text{for } i := 2; \cdot \text{ceil}(n^{1/2})$$
$$\text{do if } p_i \text{ then for } j := i; \cdot \text{ceil}(n/i) \text{ do } p := (j \times i) \rightarrow \perp \text{ } | p \text{ od}$$
$$\text{else ok fi od}$$

(a) Show how the program can be transformed for concurrency. State your answer by drawing the execution pattern.

(b) What is the execution time, as a function of $n$, with maximum concurrency?