1.

Ex 1: $T_{(1)}$ n^3+2 for $n=0 = 0$

$7n+9$ for $n=4 = 37 = O(n)$

$T_{(2)}$ $3n^4+3$ for $n=0 = 0$

$2n^2$ for $n=3 = 18 = O(n^2)$

2. the $T_1(n)$ has more efficient algorithm because when $n \geq 0$ n^2 always has more ~~time to take~~ take more time.

(1) $\dot{a}b \to i\dot{b} \to \sqcup\dot{b} \to \sqcup\dot{x} \to$ return F

Date. /

Ex2:

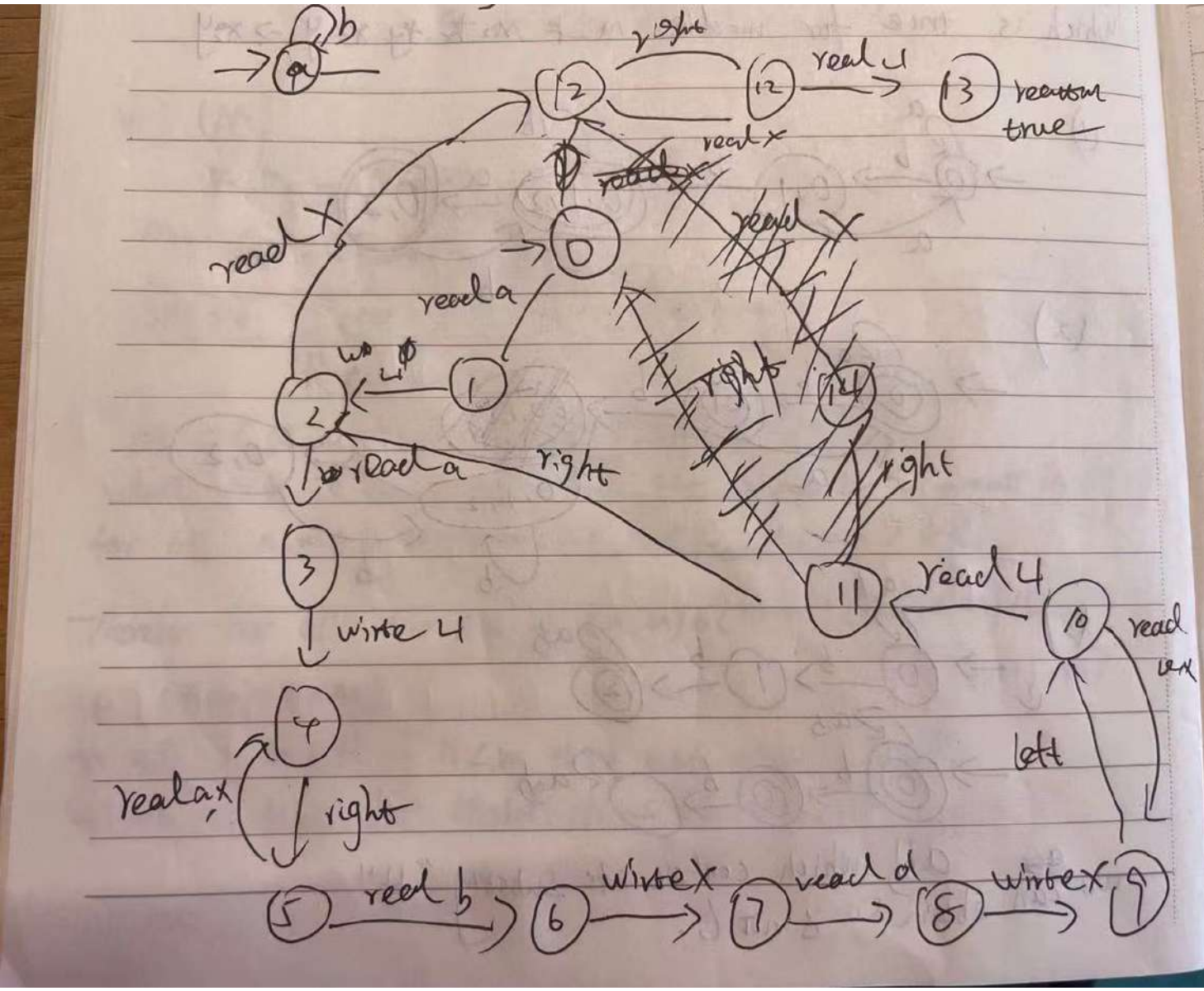
(2) read a → write ⊔ → b → X → b → X → ⊔ → right → 0
→ read x → return true.

~~aab~~ abb is accept

abbb is not accept.

(3) $L(M) \{a^{n} b^{2n} \mid n \geq 1\}$

(4) $L(a^{n+1} b^{2n} \mid n \geq 1)$


b
right
read 4
return true
read x
read x
read a
write 4
read a
right
right
right
read 4
read
left
write 4
read a
right
read b
write x
read d
write x