	classmate	2
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e e		

W. RECURSION

I TERATIVE SYSTEMS .

ARS = r(A, ->) -> CAXA

(on inct: N → N)

the (n) = n+1 trace (x0) = (x0, FCx6), FCx6), ...)

trace (0) = (0,1,2,...)

factorial X = N2

Fu;a) = (ist, axi) (20

20 = (n,1) (c'a) ~ c'=0

 $(3,1) \rightarrow (2,3) \rightarrow (1,6) \rightarrow (0,6)$

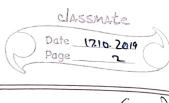
 $F(x_0) = F^2(x_0) = F^3(x_0) = F(F^3(x_0)) = F^3(x_0)$

fac (n) & F(d, a) & \dot{c}_{n+i} , \dot{a} , $\dot{c}_{i=0}$ \Rightarrow (\dot{c}, a) (i,a) = (Cn, i)

(i,a) = (n, 1) else $\Rightarrow (i-1, a*xi)$ while $((i,a)! = F(i,a)) \in 3$

 $(i)_a) = F(i)_a$

relorn a



2: R>A (R) x is a signal colotime $\dot{x} = F(i)$ $\dot{\chi}(t) = F(\chi)$ $X: \mathbb{N} \to A$ F: A -> A 26: F(x), tail recorsive version: losp. ii va veg ;;; vs goto

Caefine 1/ goto

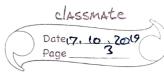
Stove eval value,

exp. value = number? | pool? proc.

denotable value =

env= id > denotable volc.

store = loc -> exp. val



Value = --.

denotable val. = loc (storable val)

Store : Loc -> Expanable val.

exp. v. = num? 1 bool? | proc?

deno. v. = Loc.

end: ('d -> denot. ul.

Grone = loc > stone v.

storev. = exp.v.

Sievev. = RYP.V.