在IMP语言中增加取值和寻址表达式、修改指针指向的内容，其语法进行了如下扩充：

Command ::= \*Identifier = Expression

|  |
| --- |
| execute [\*I := E] env sto =  let val = evaluate E env sto in  let variable loc = find(env, I) in  let variable loc’ = fetch(sto, loc) in  update(sto, loc’, val) |

Expression :: = \*Identifier

|  |
| --- |
| evaluate[\*I] env sto =  evaluate I’ env sto in  let variable I’ = fetch(sto, I) |

Expression :: = &Identifier

|  |
| --- |
| evaluate[&I] env sto =  λloc. if find(sto,I’)==evaluate(I) in  let variable I’ = fetch(sto,loc) then  loc |