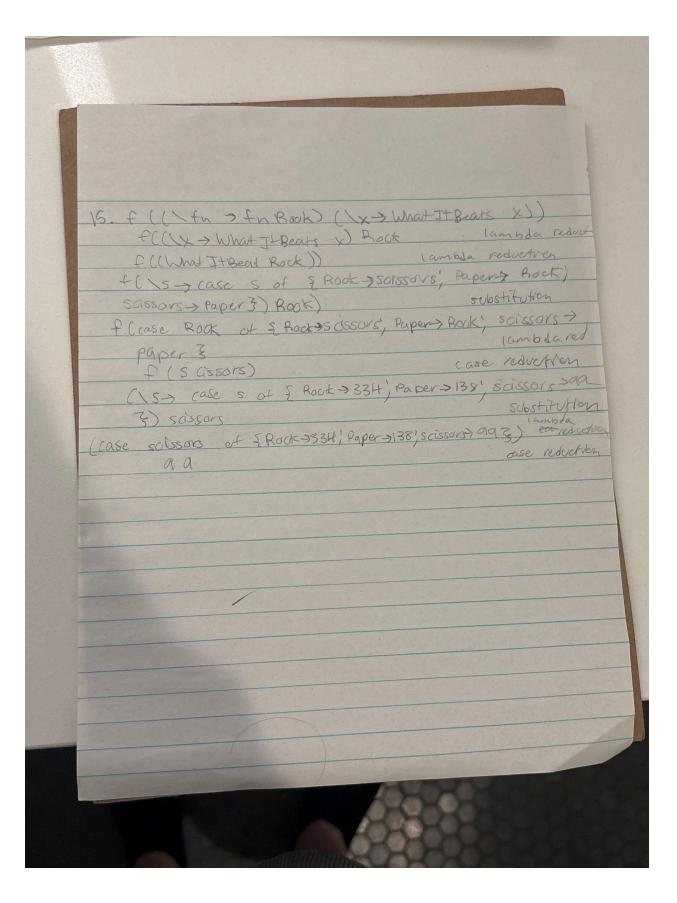
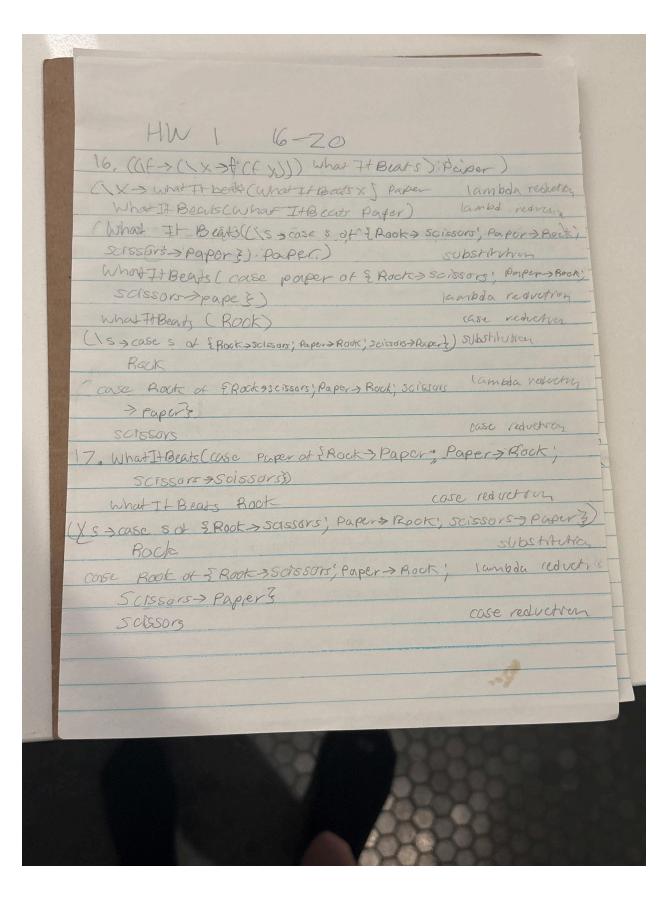
HW 1 1 let x=4+6 in (3*x) > 30(4+5) let reduction > 3.9 arith metro arm mette 2. (1x > 3.x) (H+5) lamble reduction × 3 · (4+6)) arithmene > 3.0 arithmetro (()x > (\y > x + (3 * y)) 4)] lambda reducto. >(\Y >) (+ (3 x y)) 1 lambda reduction 4+(3+1) 1 arithmetro 4+3 arithmetic 4, ((1x > (14 ->x+ (3xx))) 4, 1 (4 > AH (3×4))1 lambda reduction (y+4+(12) 1 ar. thmette () > 16) 1 16 arihmetro lambda reduction 5, ((x > ()y > y+ (3 xy))) 4)1 lumba reduction ((x) + y + (3.y) 1 Jambola reduction 1+(3-1) anthonopie 1+(3) anthrette

& Let x=H in (let y=1 in (x+(3.4))) let reduction Let x=4 in (x+(3.1)) let reduction arithmetic let X=H in (ht y=1+x in (x+(3-y))) let reduction 4+ (3. (1+4) arithmetic 4+(3.(6) anthometry 4+(15) anmitte let reduction let resultion 47 47 (() 43.4) 4) 5 landa reduction I am bda reduction 5+(3.4) arithmetre S+(12) arithmetic

lambda reduction armetre lambda reduction arithmetre let reduction arihmetro carimmetro la poimble reduction L. (3)+H anthmenic arithmetic 56 =4 in ((y >x+y)) per let reduction lambda reduction arithmetre Substitution I ambda reducting anmartin 10

f= 1s > case 5 of EROCK > 334; Paper > 138; scissors > aq3 13 10t fn = ly > (lut y=3 in (x) x+y)in fn 4 let reduction 11 Substitution ((x > (x+3)) 4 th 4 litilet the (let y=3 in X+x+4) in let An= (x > x+3) in fn' L 3 Most tutras (XX7 X+3) 4 substitution care recording aa CXX what It Beat X) toda reduction 18 nease 5 of FROCK -> Scissons, 10 aper -> ROCK, abstitution SCISSUS-> Paper3 Rock of 18 Rock 3 Sch Tambda reduction Cone viduation + (50/58018) (s = case 80t & 200k+3841, paper > 1881, setosons - apro) sectosons





16. (cose (Win Rook) of & Draw & what Fr Beats ! win 2> (ase Cuth Rock) of & Pran > (1s > case s at & Rock > solson) Paper > Rook solsons > paper 3); win z > (15 > is clost through on of 5 crasors) 3) Paper case reduction (.15 - sciesors) paper rempde reductor 50/8500 Caces nonne 19 case Culo (What It Beats Boots) of E Draw on , win yo (n++ y)} (Case (wm (1)s > case s of & Rock + scrissors; paper > Reck; Scissors -> Paper 3) Buck) of & Draw ->n; win x -> Cn+fx) 3 substitution (case [win (case Rock of & Rock) soissons , Paper > Rock) SCISSOIS> Paper 3 of foram >n', wm x>(n+fx)3 Substitution (case (Win soissors) of & Draw >n; wm x > (n+FX) Case (win scissors) of & Drawsi; win x > (1+Px) } outostatution on case reduction IL+ f scissors) (1+ (15-) case & of SROCK->334; Paper > 138; SUBSTITUTE lambola Sclosors > qaz) scissors) reserva + case & cisson of & Rook > 334; Paper > 138; scissors , any case reduction ft aa anithmetre 100

