Comp 3007 Assignment #4
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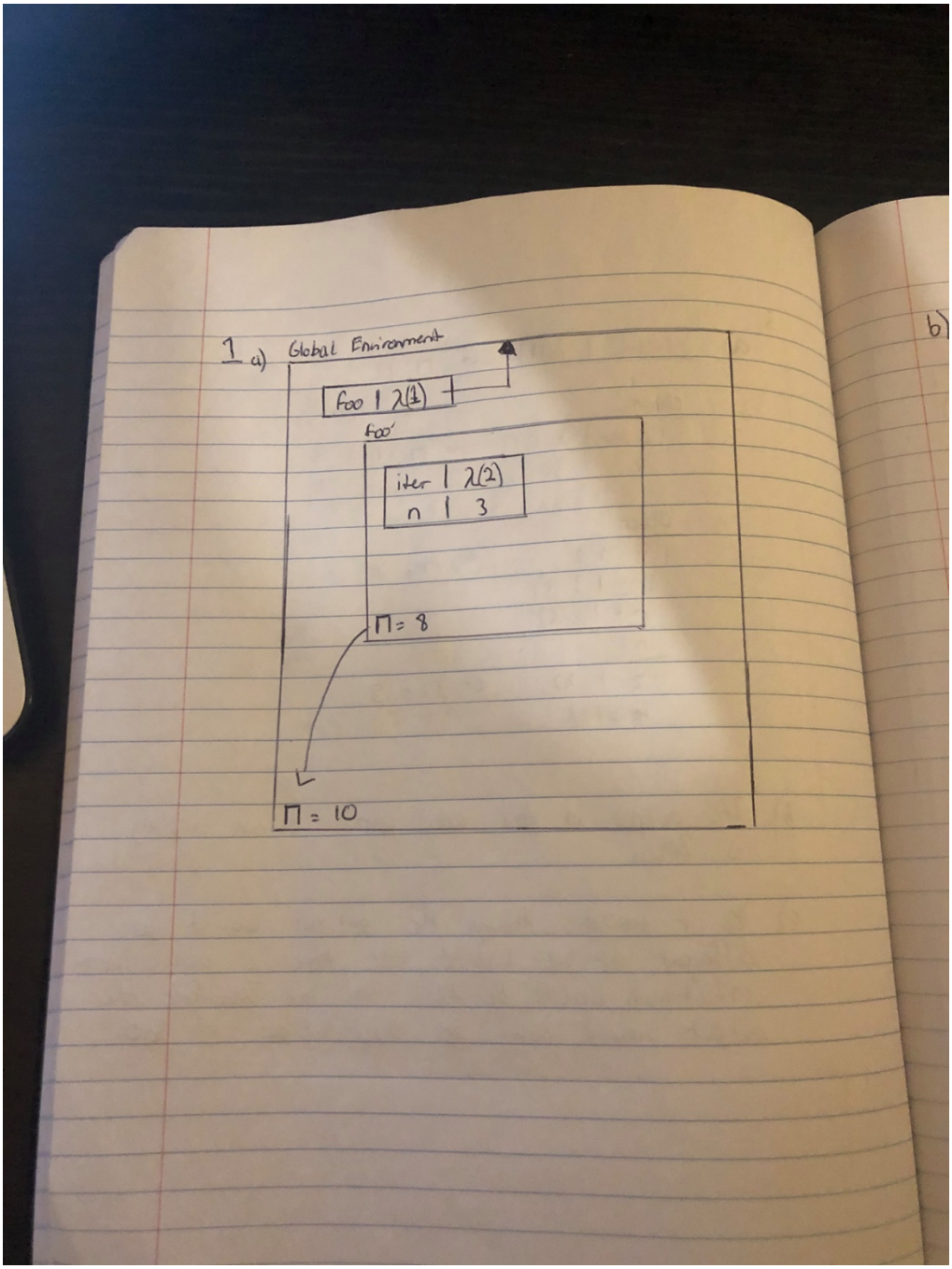
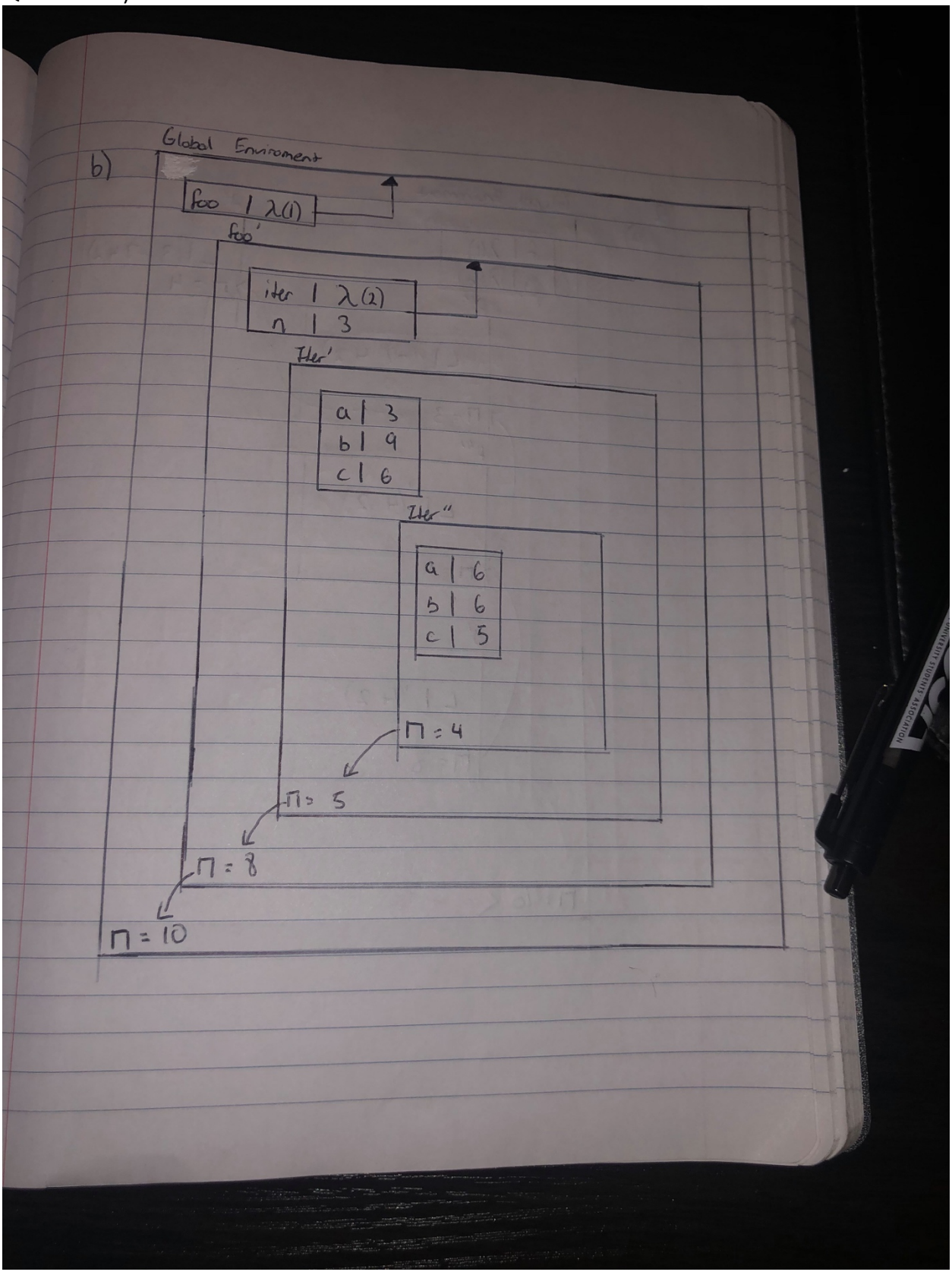
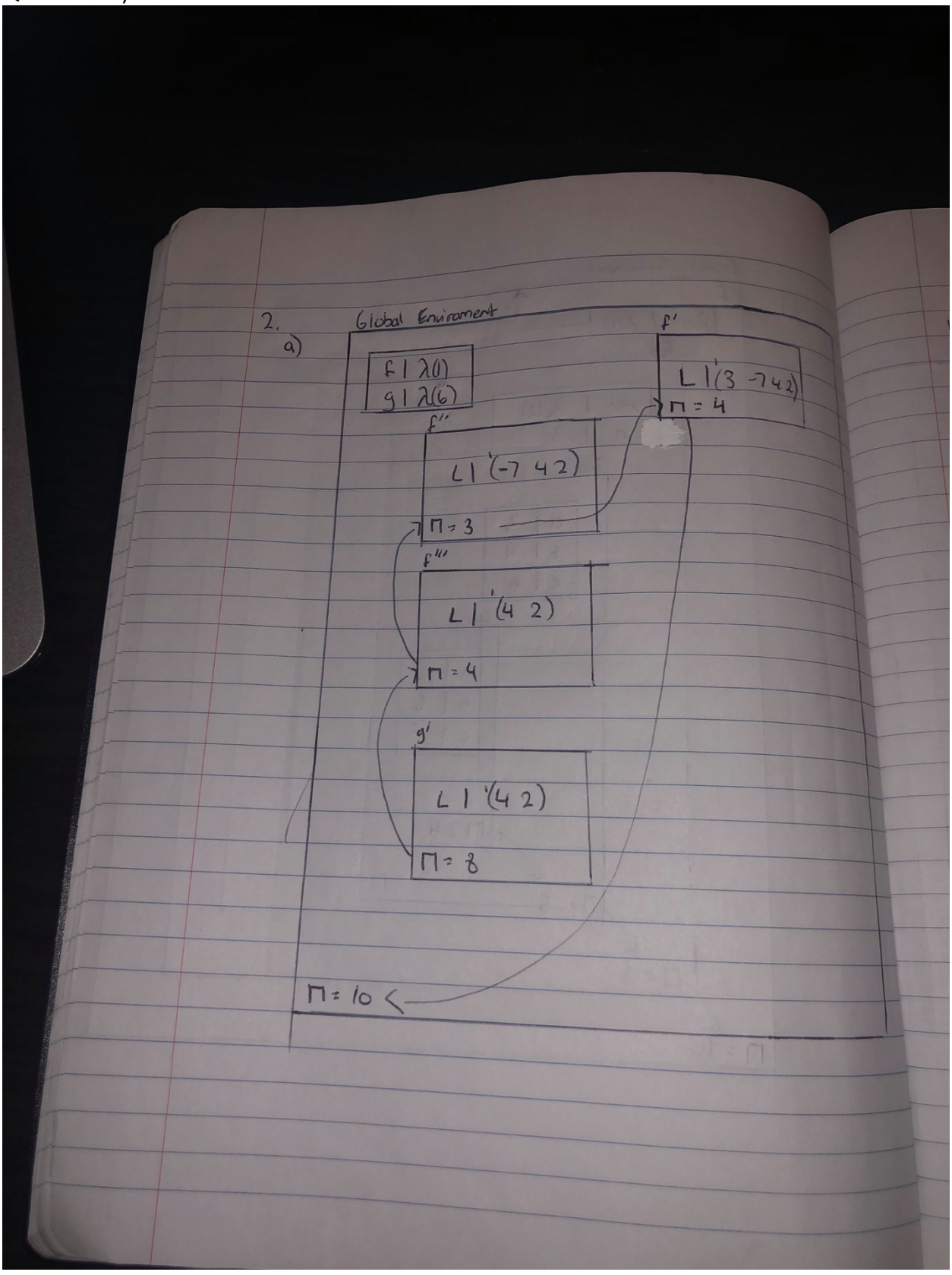
Question 1a)



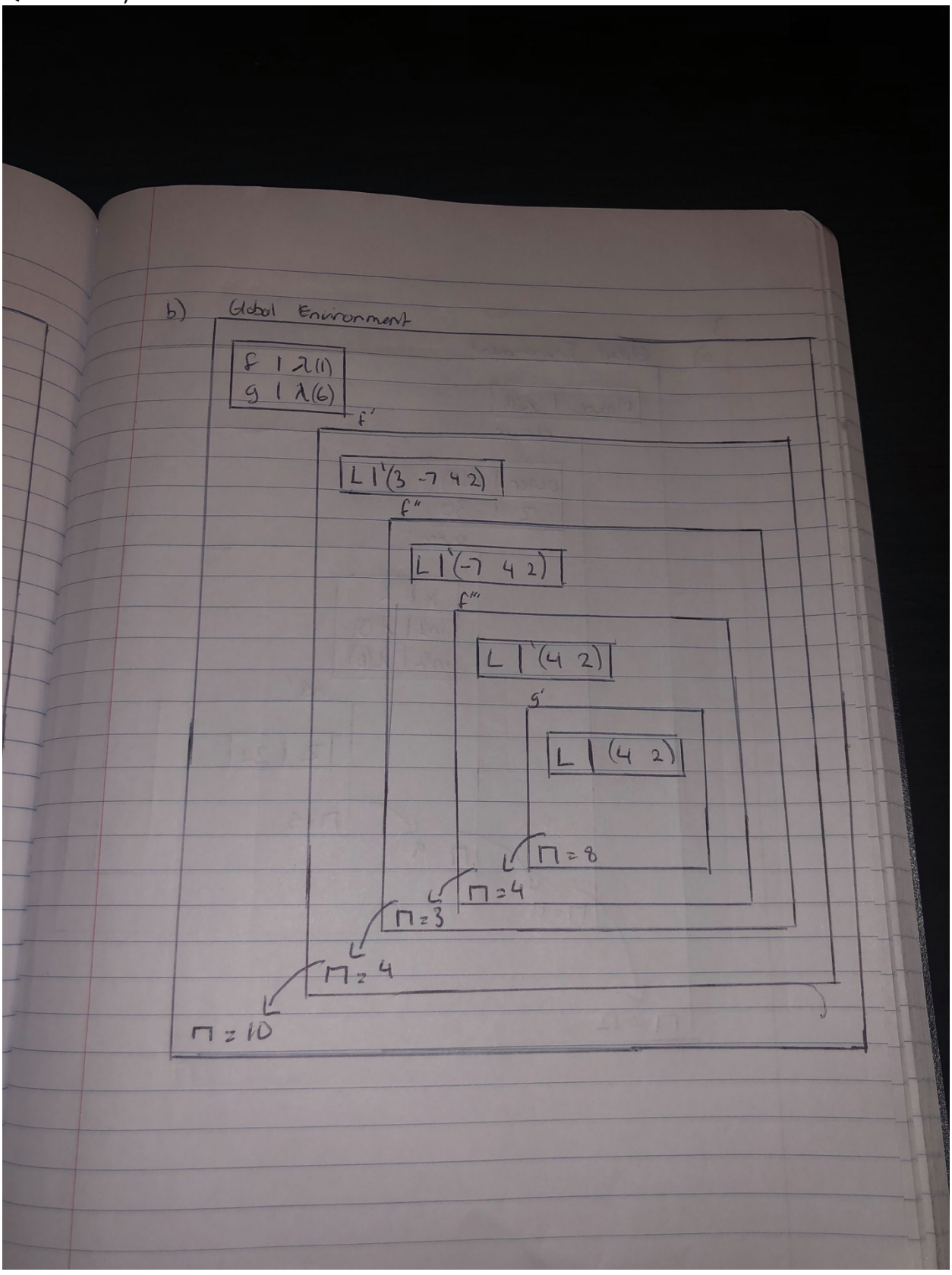
Question 1b)


b)
Global Environment
foo | λ(1)
foo'
iter | λ(2)
n | 3
Iter'
a | 3
b | 9
c | 6
Iter"
a | 6
b | 6
c | 5
Π = 4
Π = 5
Π = 8
Π = 10

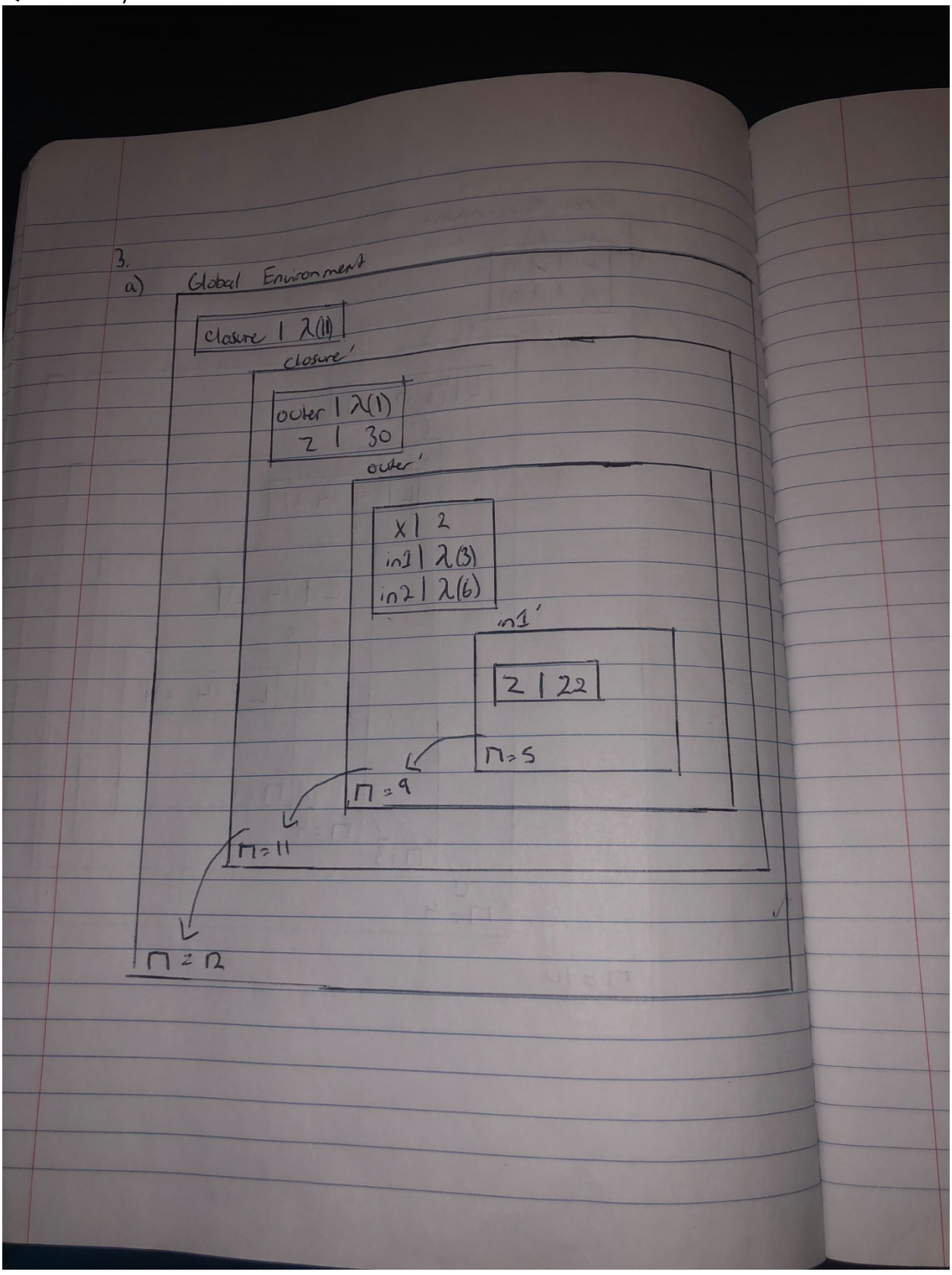
Question 2a)


2.
a)
Global Enviroment
f | λ(1)
g | λ(6)
f'
L | (3 -7 4 2)
n = 4
f''
L | (-7 4 2)
n = 3
f'''
L | (4 2)
n = 4
g'
L | (4 2)
n = 8
n = 10

Question 2b)



Question 3a)


3.
a) Global Environment
closure | λ(11)
closure'
outer | λ(1)
z | 30
outer'
x | 2
in1 | λ(3)
in2 | λ(6)
in1'
z | 22
Π=5
Π=9
Π=11
Π=12

Question 3b)

The output of this code using lexical scoping is 300.

Question 3c)

Yes it would, though the output would be different as we would use the z value from in1 (which would be 22) in in2. Therefore the output would now be 220 instead of 300.