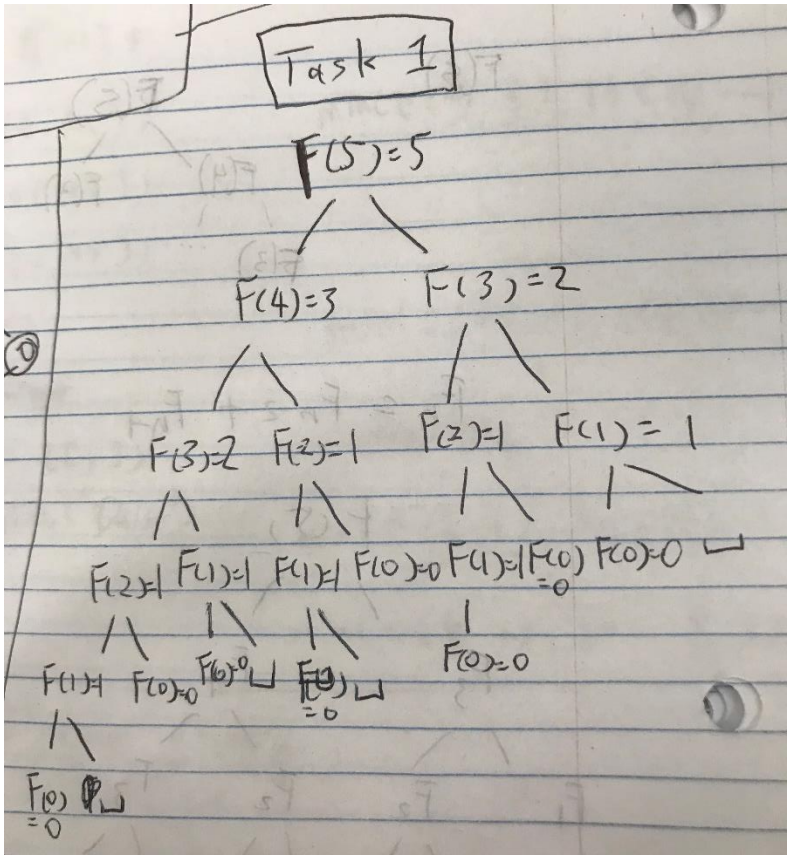
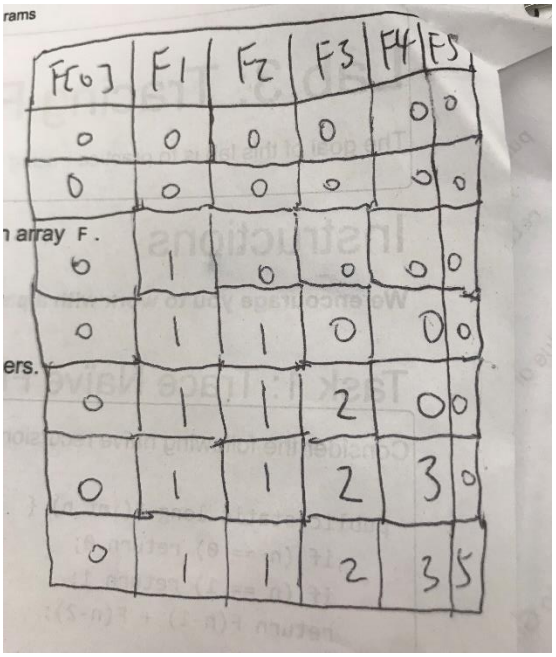
```
/*****************************************************************************
 ***   You and your partner's name, if any.                                ***
 *****************************************************************************/
Li Xi
Matthew Pestona

/*****************************************************************************
 ***   Do you attest that this work is your own, in accordance with the     ***
 ***   statement on academic integrity in the syllabus?                     ***
 *****************************************************************************/

Yes or no?
Yes.

/*****************************************************************************
 ***   List any other comments here.                                       ***
 *****************************************************************************/
```

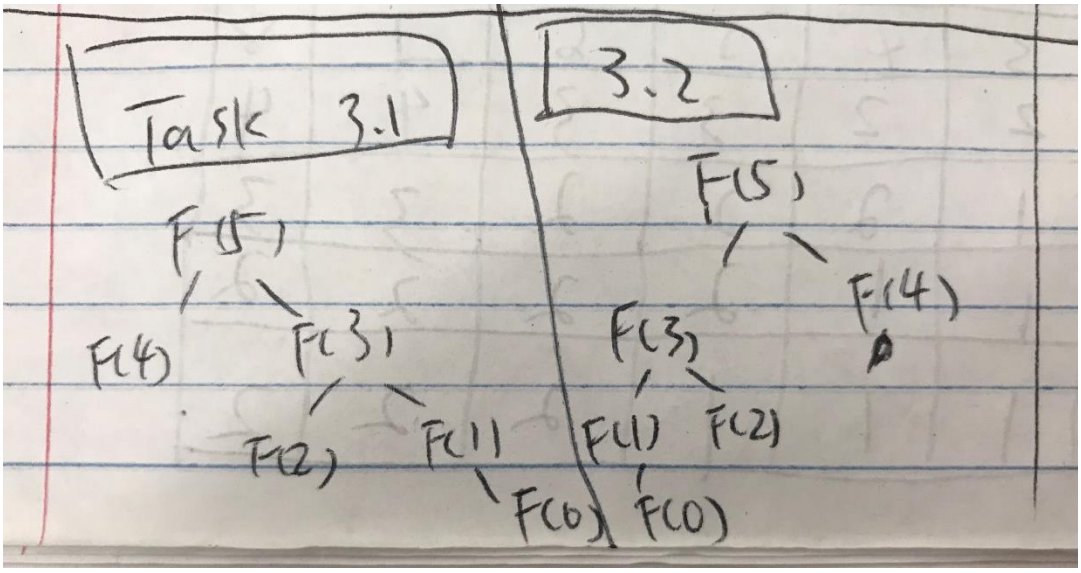
Task 1


Task 1
F(5)=5
F(4)=3
F(3)=2
F(3)=2
F(2)=1
F(2)=1
F(1)=1
F(2)=1
F(1)=1
F(1)=1
F(0)=0
F(1)=1
F(0)=0
F(0)=0
F(0)=0
F(1)=1
F(0)=0
F(0)=0
F(0)=0

Task 2


rams
F[0]
F1
F2
F3
F4
F5
array F.
ers.

Task 3



Task 4.1

			j								
			0	1	2	3	4	5	6	7	8
i	1	d1	0	1	2	3	4	5	6	7	8
	2	d4	0	1	1	3	1	2	3	4	2
	3	d5	0	1	1	2	1	1	2	2	2

Task 4.2

The problem identified: if continuing using the base case i = 1, then I will get j/d1 = 0.5 when j = 1 and d1 = 2. To avoid fractions, I changed the base cases to:

j/d1 if i = 1 && d1 = 1

j if i = 2 && d1 = 2

			j								
			0	1	2	3	4	5	6	7	8
i	1	d2	0	1	2	3	4	5	6	7	8
	2	d4	0	1	1	3	1	2	3	4	2
	3	d5	0	1	1	2	1	1	2	2	2

Task 5

g(0) = 0; f(0) = 0;

g(2) = g(1) + f(2) = 2 * g(1) + f(1) = 2 * (g(0) + f(1)) + f(1) = 2 * (g(0) + f(0) + g(0)) + f(0) + g(0) = 0;