Function Practice

- 1. Label the 3 parts of a function prototype.
 - 1. Function Name
 - 2. Return Dotatype
 - 3. Parameters
- 2. Create a prototype for a function which calculates a persons SAT Score. The function should take in the a Math score, and a Reading/Writing scores and return an overall SAT Score.

Example: Math - 400, Reading/Writing - 300, Total - 700

3. Answer the following questions given the code segment below.

```
int unknownFunction(int iA, int iB)
      int iC = 1;
      for (int i = 0; i < iB; i = i + 1)
      return iC;
10
```

(a) Fill out the tracing table below given the function call unknownFunction (2,3).

	~	~	,	. ,
iA	iB	iC	i	
2	3	X	Ø	
		ick in = 142	-2 -2 X	
		11 242	<u>-4</u> 4 2	
		11 - 242 11 - 442	=8 -9 3	

(b) What is the purpose of unknownFunction?

What is the purpose of unknownFunction?

Power function
$$\#$$

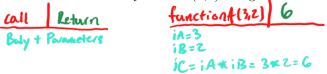
Doesn't work for (-) exp

- (c) What are parameters iA and iB each representing?
 - 1. iA: Base
 - 2. iB: **₹**⊀₽
- (d) What is the return iC representing?
 - 1. iC: Product

4. Answer the following questions given the code segment below

```
1 #include <iostream>
3 using namespace std;
4 int functionA(int iA, int iB)
5
       int iC = iA * iB;
6
       return iC;
7
8
int functionB(int iA, int iB)
11 {
12
       int iC = iA + iB;
       return iC;
13
14
15
void functionC(int iA, int iB)
17 {
      18
19
20 }
21
22 int main()
23
  {
       int iA = 2, iB = 10;
^{24}
25
      iA = functionA(iA, iB);
iB = functionB(iA, iB);
27
28
       functionC(iA, iB);
29
       return 0;
30
31
```

(a) Trace the function call function A(3,2) using a function t-chart.



(b) Track the changes to iA and iB using the table below and function t-charts. Start @ Main

	iA	iB	Output	
	X	10		1
	20	36		
			•	
£	1001A(2,10) 20 fun	tion B(20,10) 30	function (20,30) (-
iΔ- iA=	iB- iB	= 20 = 10	iA=20 = 0 i B=30	7 Scope
		} *	i B : 30	

(c) Assume we replace Line 29 with function C(iB, iA), what happens to the output of the program?

ia:30