



C Programming

Question:

```
#include<stdio.h>
void fun(int n){
    printf("%d",n);
    for (int i=0; i<2; i++){
        if(n>0) fun(n-1);
    }
}
int main(){
    fun(2);
}
```

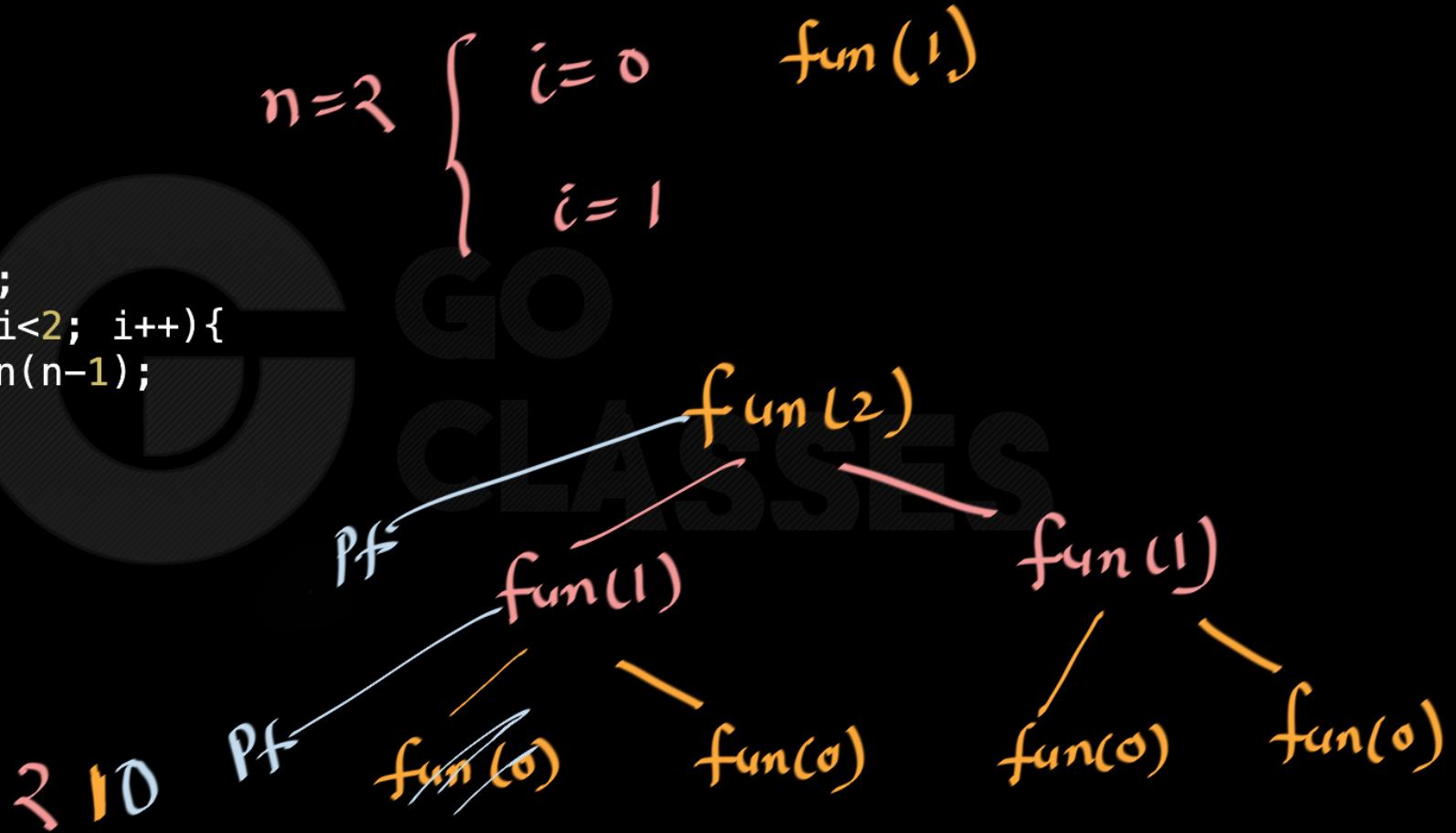
Output of the program-

- A. 210
- B. 2100100
- C. 210210
- D. 2121



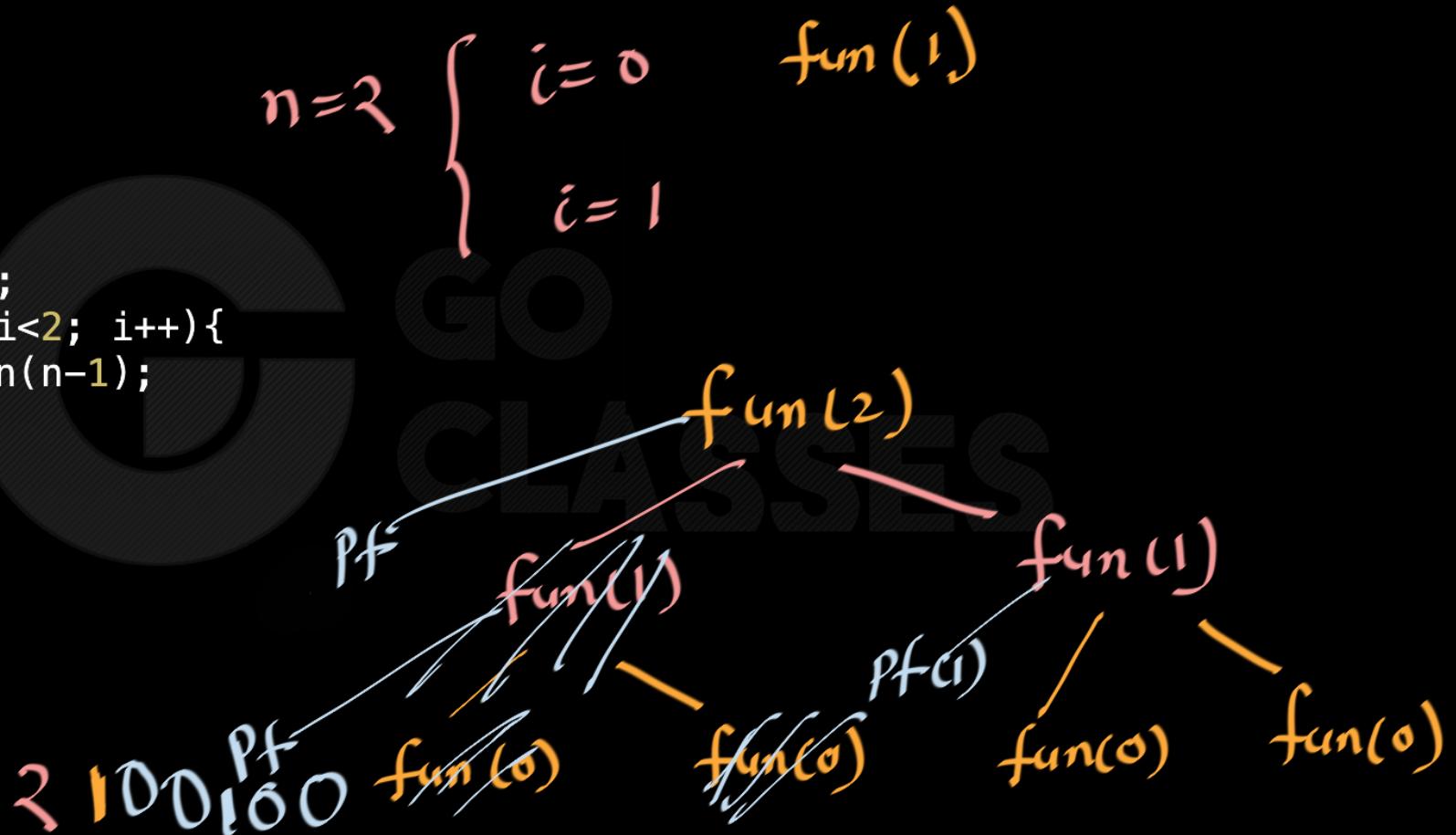
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void fun(int n){
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int main(){
    fun(2);
}
```





Question:

```
#include<stdio.h>

void x(int n) {
    for (int i = 0; i < n; i++) {
        printf("%d", n);
        x(n - 1);
    }
}

int main() {
    x(2);
}
```

Output of the program-

- A. 210
- B. 2100100
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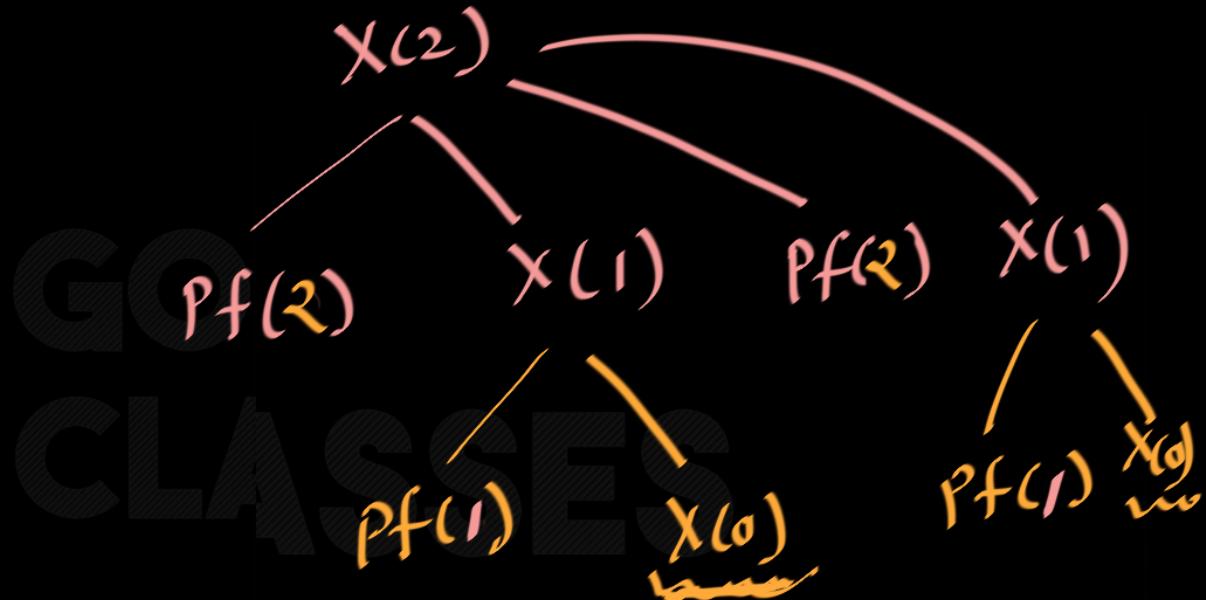
Question:

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#include<stdio.h>

void x(int n) {
    for (int i = 0; i < n; i++) {
        printf("%d", n);
        x(n - 1);
    }
}

int main() {
    x(2);
}
```

2 |





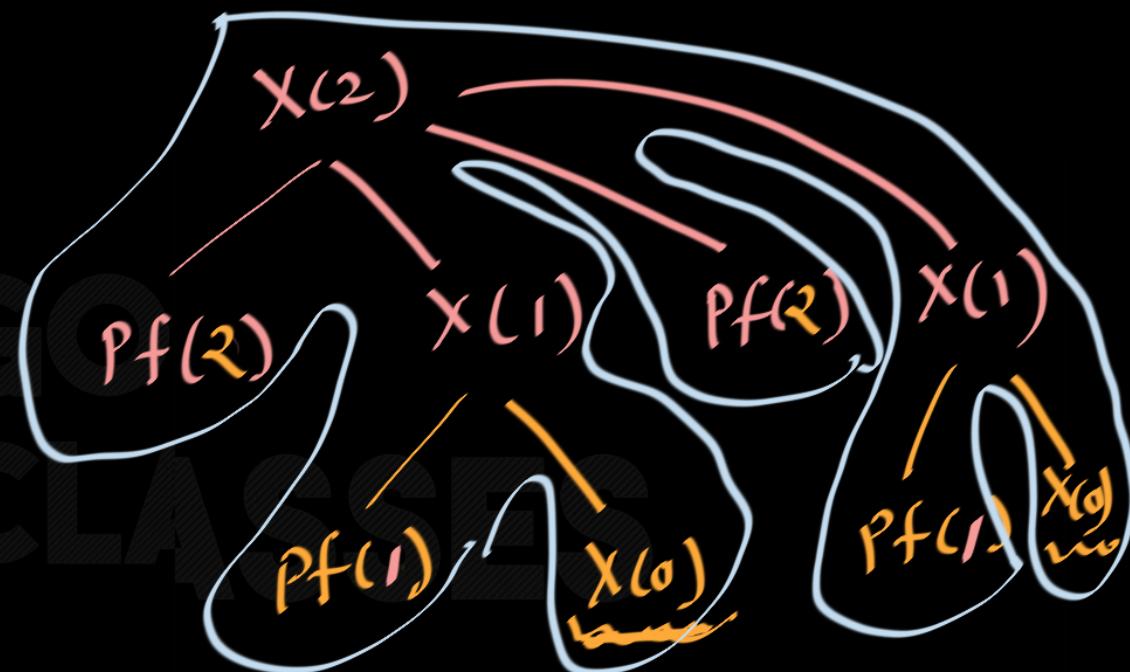
Question:

```
#include<stdio.h>

void x(int n) {
    for (int i = 0; i < n; i++) {
        printf("%d", n);
        x(n - 1);
    }
}

int main() {
    x(2);
}
```

2 | 2 |



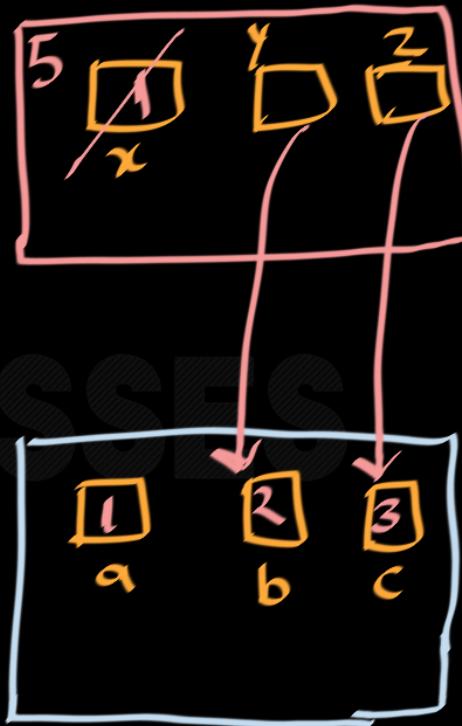
Answer: 2

Question: What will be output of this code ?

```
#include<stdio.h>

void my_fun(int x, int *y, int *z) {
    x = *y + 3;
    *y = x + *z;
    *z = *y + x;
}

int main() {
    int a = 1, b = 2, c = 3;
    my_fun(a, &b, &c);
    printf("%d %d %d", a, b, c);
    return 0;
}
```

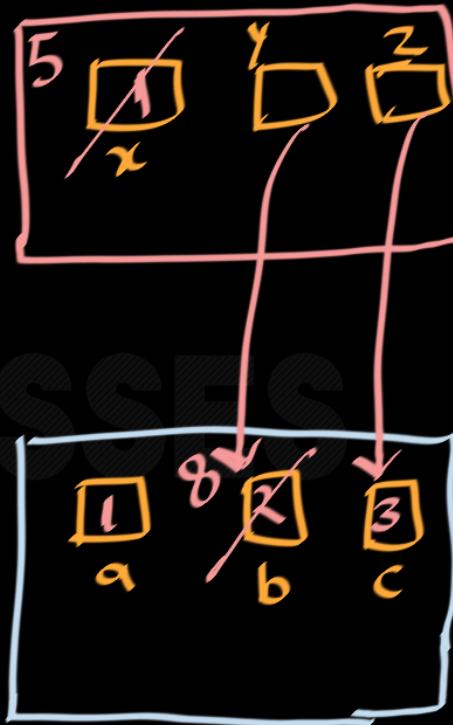


Question: What will be output of this code ?

```
#include<stdio.h>

void my_fun(int x, int *y, int *z) {
    x = *y + 3;
    *y = x + *z;
    *z = *y + x;
}

int main() {
    int a = 1, b = 2, c = 3;
    my_fun(a, &b, &c);
    printf("%d %d %d", a, b, c);
    return 0;
}
```

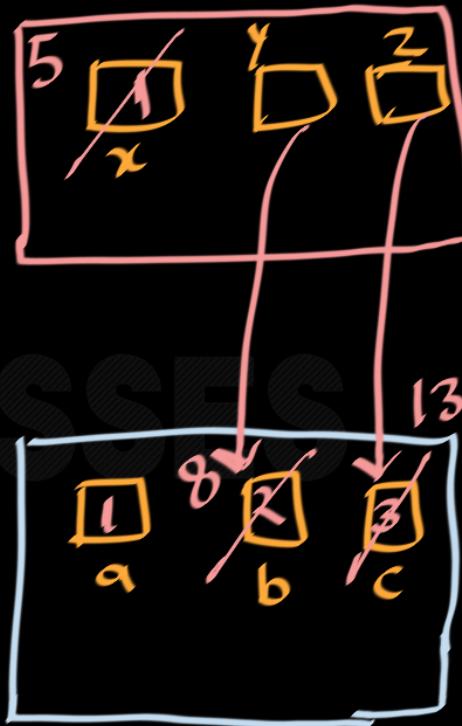


Question: What will be output of this code ?

```
#include<stdio.h>

void my_fun(int x, int *y, int *z) {
    x = *y + 3; ✓
    *y = x + *z; ✓
    *z = *y + x;
}

int main() {
    int a = 1, b = 2, c = 3;
    my_fun(a, &b, &c);
    printf("%d %d %d", a, b, c); ↗ 13
    return 0;
}
```





C Programming

Question:

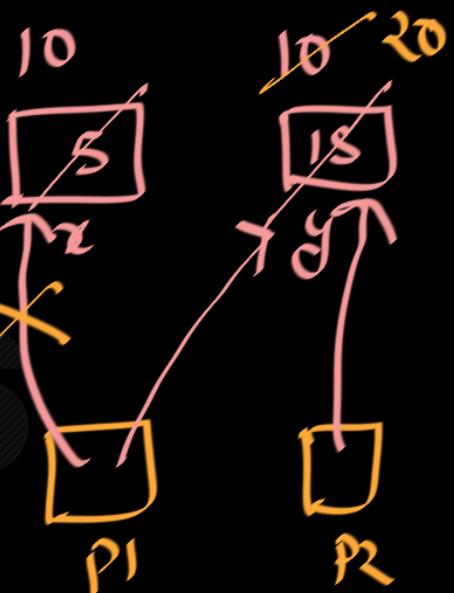
Consider the following C code. After each line, write down the contents of *x* and *y*.
If at any point you cannot determine the contents, write “unknown”.

```
int main(void)
{
    int x = 5, y = 15;
    int * p1, * p2;

    p1 = &x;          // x contains _____; y contains _____
    p2 = &y;          // x contains _____; y contains _____
    *p1 = 10;         // x contains _____; y contains _____
    *p2 = *p1;        // x contains _____; y contains _____
    p1 = p2;         // x contains _____; y contains _____
    *p1 = *p2+10;    // x contains _____; y contains _____
}
```

	5	15
p1 = &x;	5	15
p2 = &y;	5	15
*p1 = 10;	10	15
*p2 = *p1;	10	15
p1 = p2;	10	10
*p1 = *p2+10;	10	20

SN Satyam Naik to Everyone 7:29 PM
p1 points to whatever p2 is pointing to
 $\text{p1} = \text{p2}$





Question: What will be output of this code ?

```
int foo(int i)
{
    i = i+2;
    return i;
}

int main()
{
    int a = 2;
    int *b = &a;
    foo(*b);
    foo(*b);
    printf("%d", a);
}
```

A. 2

B. 4

C. Error since we can not pass pointer in foo() function

D. 6





C Programming

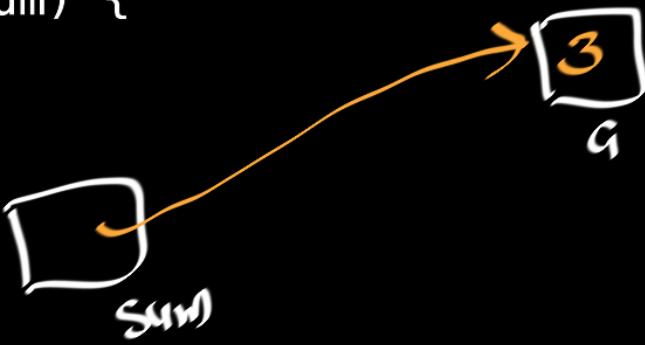
Question:

```
#include<stdio.h>
void addAbs(int, int, int* );
int main() {

    int a;
    addAbs(1, 2, &a);
    printf("a = %d", a);
}

void addAbs(int a, int b, int *sum) {
    (*sum) = a + b;
    if ((*sum) < 0) {
        (*sum) = -( *sum);
    }
    return;
}
```

- A. 3
B. -3
C. Error since function addAbs() is void type and has return statement
D. 0



Question:

```
#include<stdio.h>
void main()
{
    int i = 5, j = 2;
    printf("%d, %d\n", i, j);
    testPass(i, &j);
    printf("%d, %d\n", i, j);
}
void testPass(int x, int *y)
{
    x++;
    (*y)++;
    printf("%d, %d\n", x, *y);
}
```

