# [CS302-Data Structures] Quiz 2

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**Q1:** Predict the Output of the following program

> **Commented [KA1]:** C

```c
#include <stdio.h>

int fun(int n)
{
    if (n == 4)
        return n;
    else return 2*fun(n+1);
}


int main()
{
   printf("%d ", fun(2));
   return 0;
}
```

| A. | 4 |
|----|---|
| B. | 8 |
| C. | 16 |
| D. | Runtime Error |

**A1:**

C

**Q2:** What does fun2() do in general?

```
int fun(int x, int y)
{
    if (y == 0)   return 0;
    return (x + fun(x, y-1));
}

int fun2(int a, int b)
{
    if (b == 0) return 1;
    return fun(a, fun2(a, b-1));
}
```

| A. | x*y |
|---|---|
| B. | x+x*y |
| C. | x^y |
| D. | y^x |

**A2:**

C