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DAA WEEK ONE ASSIGNMENT

Q1) CODE:

```c
#include<stdio.h>
int sum(int n){
    int s =0 ;
    for(int i=0;i<=n;i++){
        s+=i;
    }
    printf("%d\n",s);
    return s;
}
int main(){
    sum(6);
}
```

OUTPUT:

```
kantamraju@kantamraju-VirtualBox:~/Documents$ gcc daa.c -o daa
kantamraju@kantamraju-VirtualBox:~/Documents$ ./daa
21
```

Q2) CODE:

```c
#include<stdio.h>
int sumsq(int n){
    int s =0 ;
    for(int i=0;i<=n;i++){
        s+=(i*i);
    }
    printf("%d\n",s);
    return s;
}
int main(){
    sumsq(6);
}
```

OUTPUT:

Q3) CODE:

```c
#include<stdio.h>
int sum(int n){
    int s =0 ;
    for(int i=0;i<=n;i++){
        s+=i;
    }
    printf("%d\n",s);
    return s;
}
int main(){
    sum(6);
}
```

OUTPUT:

```
kantamraju@kantamraju-VirtualBox:~/Documents$ gcc daa.c -o daa
kantamraju@kantamraju-VirtualBox:~/Documents$ ./daa
21
```

Q4) CODE:

```c
#include<stdio.h>
int fact(int x){
if(x==0) return 1;
if(x==1) return 1;
else{
return x*fact(x-1);
}
}
int main(){
int x ;
printf("enter the no.: ");
scanf("%d",&x);
printf("%d",fact(x));
printf("\n");
}
```

OUTPUT:

```
kantamraju@kantamraju-VirtualBox:~/Documents$ gcc daa.c -o daa
kantamraju@kantamraju-VirtualBox:~/Documents$ ./daa
enter the no.: 5
120
```

Q5) CODE:

```c
#include<stdio.h>
int main(){
int arr[3][3] = {{0, 1, 2}, {4, 5, 6}, {8, 9, 10}} ;
printf ("MATRIX\n");
for (int i = 0; i < 3; i++) {
for (int j = 0; j < 3; j++) {
printf("%d ",arr[i][j]);
}
printf("\n");
}
printf ("TRANSPOSE\n");
for (int i = 0; i < 3; i++) {
for (int j = 0; j < 3; j++) {
printf("%d ",arr[j][i]);
}
printf("\n");
}
}
```

OUTPUT:

```
kantamraju@kantamraju-VirtualBox:~/Documents$ gcc daa.c -o daa
kantamraju@kantamraju-VirtualBox:~/Documents$ ./daa
MATRIX
0 1 2
4 5 6
8 9 10
TRANSPOSE
0 4 8
1 5 9
2 6 10
```

Q6) CODE:

```c
#include<stdio.h>
int fib(int x){
if(x==0) return 0;
if(x==1) return 1;
else{
return fib(x-1)+fib(x-2);
}
}
int main(){
int x ;
printf("enter the no. of fibonacci nos. : ");
scanf("%d",&x);
for (int i=0 ; i<=x ; i++){
printf("%d ",fib(i));
}
printf("\n");
}
```

OUTPUT:

```
kantamraju@kantamraju-VirtualBox:~/Documents$ gcc daa.c -o daa
kantamraju@kantamraju-VirtualBox:~/Documents$ ./daa
enter the no. of fibonacci nos. : 5
0 1 1 2 3 5
```