

1. Write down the output of the following C program.

[12]

```
#include <stdio.h>
int main( )
{int a[3][4],i,j;
for(i=0;i<3;i++)
    {
    for(j=0;j<4;j++)
        a[i][j]=2*i+3*j+4;
    }
printf("%d %d %d \n",*a[2]+2,*a[2]+2,*a[1]+7);
printf("%d %d %d \n",*(*a+3),**a+2,*(&a[1][3]+4));
return 0;
}
```

Answer:

2. Write a recursive C function that returns the sum $1^3 + 2^3 + 3^3 + \dots + n^3$.

[8]