# Exercise 1

```c
#include<stdio.h>

int main()
{
    int a[]={2,4,6,8,10},y=1,*p;
    p=&a[1];

    printf("a = %p\np = %p\n",a, p);

    for(int i = 0; i < 3; i++)
        y += *(p+i);

    printf("y = %d\n\n",y);

    int b[5]={1,2,3,4,5};
    int *ptr=(int*)(&b+1);

    printf("b = %p\nb+4 = %p\nptr = %p\n",b,b+4,ptr);
    printf("%d,%d\n",*(b+1),*(ptr-1));

    return 0;

}
```

Run the program and explain the result to SA.

# Exercise 2

```cpp
#include <iostream>
using namespace std;

int main()
{
    int a[][4]={1,3,5,7,9,11,13,15,17,19};
    int *p=*(a+1);
    p += 3;
    cout << "*p++ = " << *p++ << ",*p = " << *p << endl;

    const char *pc = "Welcome to programming.", *r;
    long *q = (long *)pc;
    q++;
    r = (char *)q;

    cout << r << endl;

    unsigned int m = 0x3E56AF67;
    unsigned short *pm = (unsigned short *) &m;

    cout << "*pm = " <<  hex << *pm << endl;

    return 0;
}
```

Run the program and explain the result to SA.

# Exercise 3

```c
#include <stdio.h>

int main()
{
    int aa[2][5] = { 1,2,3,4,5,6,7,8,9,10 };
    int* paa1 = (int*)(&aa + 1);
    int* paa2 = (int*)(*(aa + 1));
    printf("%d,%d\n", *(paa1 - 1), *(paa2 - 1));

    char* str[] = { "work","at","alibaba" };
    char** ps = str;
    ps++;
    printf("%s\n", *ps);

    return 0;
}
```

Run the program and explain the result to SA.

# Exercise 4

Write a program that use **_new_** to allocate the array dynamically for five integers.

- The five values will be stored in an array using a pointer.

- Print the elements of the array in reverse order using a pointer.