

Pointer Exercise 2

Explain the following lines of code:

```
int numbers[3] = {8,10,12};
```

8	10	12
---	----	----

```
cout << numbers[0] << endl;
```

A0

A4

A8

```
cout << numbers[2] << endl;
```

```
cout << &numbers[0] << endl;
```

```
cout << &numbers[2] << endl;
```

```
int* ptr1 = numbers;
```

```
ptr1 = &numbers[0];
```

```
cout << *ptr1 << endl;
```

```
cout << *ptr1 + 1 << endl;
```

```
cout << *(ptr1 + 1) << endl;
```

```
cout << *(ptr1 + 2) << endl;
```

```
cout << *(ptr1 + 3) << endl;
```

```
int total = 0;
ptr1 = numbers;
for (int i=0; i < 3; ++i)
{
    total += *ptr1;
    ++ptr1;
}
double d[3] = {1.1, 3.3, 5.5};
double* ptr2 = &d[0];
ptr1 = &numbers[0];
double bigTotal = 0;
for (int i=0; i < 3; ++i)
{
    bigTotal += *ptr1 + *ptr2;
    ++ptr1;
    ptr2 = ptr2 + 1;
}
cout << bigTotal << endl;
```

```
ptr1 = new int;
*ptr1 = 10;
cout << *ptr1 + 20 << endl;
```

```
ptr1 = new int[3];
*ptr1 = 5;
*(ptr1 + 1) = 10;
ptr1[2] = 15;
delete [] ptr1;
```