1.) What is the output?

```
int x = 20;
int* p = &x;
cout << p << endl;
cout << *p << endl;
```

address of x (or p = address of x)
20

don't know, actually it's come from computer memory address

2.) What is the output?

Alias = AKA นามแฝง

ex.
```
int num = 10;
int x;
int *p;
p = &num;
x = *p+5
```

```
int x = 60;
int* p = &x;
x = x + 5;   60+5 = 65, x=65
*p = x + 5;  65+5 = 70
*p = *p + 5; 70+5 = 75
cout << *p << endl;
cout << "The address of p is " << &*p << endl;
```

75
The address of p is ~~don't know, as I mention above~~ The address of p inter p

3.) Assuming pointer p1 and p2 is created as integer variable type. What is the different between p2 = p1 and *p2 = *p1.

```
int *p1;
int *p2;
```

p2 = p1 : is the address

pointer p2 is pointing at the same address as p1

Ex. *p2, *p1 → 7

*p2 = *p1 : variable of pointer p2 will be equal to variable of pointer p1

assign value of pointer p1 to p2

4.) What is '&' and is it different from '*'. Why?

& : is reference to address

* : is pointer sign use to indecate that it's pointer content

└ use to refer to something in that content (use in pointer)

└ variable

int *p; is same as int* p;

Array

0	1	2	3	4
0	0	0	0	0

destructor

*p1

0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0					

capacity : index ที่มากสุดที่ vector นี้

<name>.capacity

reserve : จอง capacity

ex. reserve.size() +10 สร้างมาเผื่อ 10 ช่อง

resize : เพิ่มจน.ช่องที่เก็บข้อมูล

ไม่มี pointer ก็ dynamic array ได้ไม่ได้

array int x[10] = {};

เพิ่มช่อง ใช้ pointer ชี้ไป index ที่ 9 แล้วคูณ 2 → 10x2 = 20

ลูกนั้น pointer ไปเลย

Vector

0 1 2 2 ← x2 ไปเรื่อยๆ

0 0 0 0