CS240 Lab 7 Assignment
C Pointers

For each row, evaluate the expression in the first column, and make a prediction for the **type** and the **numeric value** of the expression. Assume that you are using a machine with 32-bit addresses and integers and little endian storage, and that:

- `char* p = (char*) 0x1100`
- `char* q = (char*) 0x1110`   for pointer types, write the ***numeric address***

for integer types, write the ***numeric value***

	type	numeric address/value
0. p	char *	0x1100
1. &p[1]		
2. &p[-1]		
3. &p[0]		
4. &p[1] - &p[0]		
5. &p[8]		
6. (p + 1) - p		
7. &p[16] - p		
8. q - p		
9. sizeof(p)		
10. sizeof(*p)		
//assume this statement is executed before evaluating the following statements **int* ip = (int*) p;**		
11. &ip[0]		
12. &ip[1]		
13. &ip[1] - &ip[0]		
14. (char*) &ip[1] - p		
15. sizeof(ip)		
16. sizeof(*ip)		
17. &ip[sizeof(int)]		
18. ip + sizeof(int)		
19. ip + 1		
20. p + sizeof(int)		
int* iq = (int*) q; //assume this statement is executed before evaluating the next statements		
21. iq - ip		
22. &iq[-1] - ip		
p[0] = p[1] = p[2] = p[3] = 0; //assume this statement is executed before evaluating the next statement		
23. *ip		
(char) ip = 1; //assume this statement is executed before evaluating the next statement		
24. *ip		
((char) ip + 1) = 1;//assume this statement is executed before evaluating the next statements		
25. p[1]		
26. *ip		
((char) ip) = 2; //assume this statement is executed before evaluating the next statements		
27. *((char*) ip)		
28. *ip		