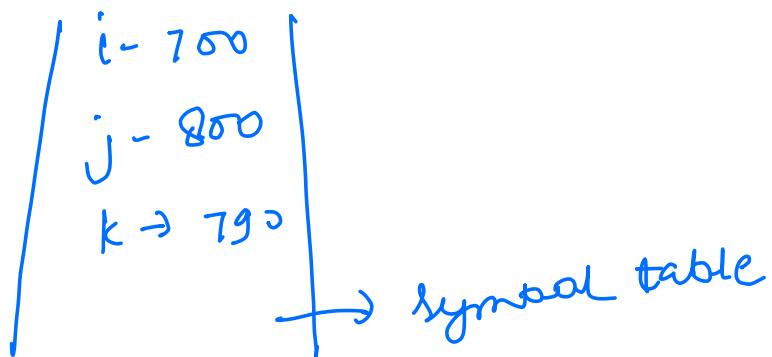
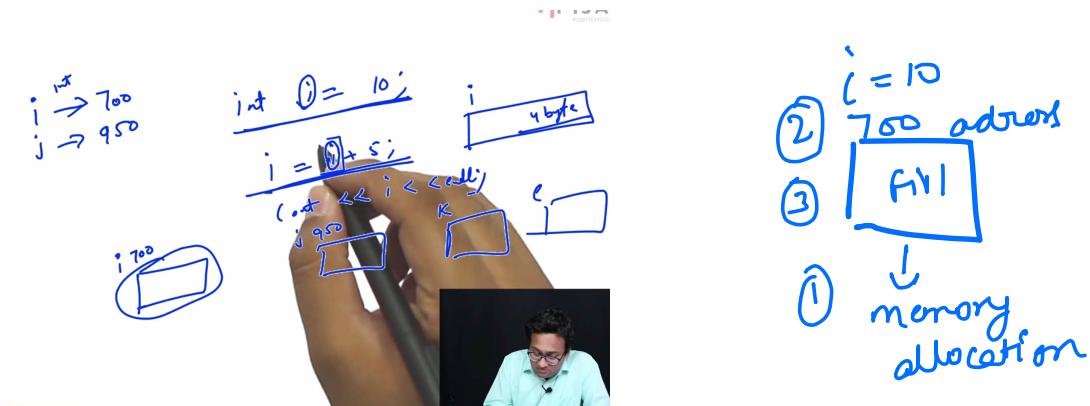


Pointer :-

why do we need pointer ?



address of $i = \$i$

$0x\{y$
means Hexadecimal base.

#pointer are variable which store address of other variable

syntax to create pointer :- int *p = &i;

we can take pointer of anything like int , float , double;

Dereference operator :- if u want to access the value that your pointer store

`cout << *p << endl;`

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int i;
6     cout << &i << endl;
7     int * p = &i;
8     cout << p << endl;
9
10    float f = 10.2;
11    float * pf = &f;
12
13    double d = 122.32;
14    double* pd = &d;
15 }
16
```

```
int i=8;
cout<<sizeof(i)<<endl;
```

output :- 4bytes

```
~/Documents/Inception — vi pointers2.cpp
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int i = 10;
6     int* p = &i;
7
8     cout << sizeof(p) << endl;
9     cout << i << endl;
10    cout << *p << endl;
11
12    i++;
13
14    cout << i << endl;
15    cout << *p << endl;
16 }
17
```

output :- 10
10
11
11

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int i = 10;
6     int* p = &i;
7
8     cout << sizeof(p) << endl;
9     cout << i << endl;
10    cout << *p << endl;
11
12    i++;
13
14    cout << i << endl;
15    cout << *p << endl;
16
17    int a = *p;
18    a++;
19    cout << a << endl;
20    cout << *p << endl;
21
22    i = 12;
23    cout << i << endl;
24    cout << *p << endl;
25    *p = 23;
26    cout << i << endl;
27    cout << *p << endl;
28 }
29
30
```

```
Codings-Mac-mini:Inception codingninjastudio$ ./a.out
8
10
11
12
11
12
12
23
23
Codings-Mac-mini:Inception codingninjastudio$
```

(*p)++;

```
int i = 10;
int* p = &i;      three ways to reach at single point
int * q = p;
```

Segmentation Fault :- you want to access that memory which u have not access

Note :- when ever u declared pointer asap give it to any address or u can initialise its as a null pointer . (e.g) = int *p = 0;

wrong method :-

```
int* p;  
cout << p << endl;  
  
cout << *p << endl;  
(*p)++;  
cout << *p << endl;
```

correct method :-

```
int* p = 0;  
cout << p << endl;  
  
cout << *p << endl;  
(*p)++;  
cout << *p << endl;
```

Practice Questions :-

Q1:-

Which of the following is the proper declaration of a pointer?

Options

Attempts left: 1/2

This problem may have one or more correct answers

- int x;
- int &x;
- int *x; ✓
- ptr x;

Correct Answer

Q2:-

Which of the following gives the memory address of integer variable a ?

Options

Attempts left: 2/2

This problem may have one or more correct answers

- *a;
- a;
- &a;
- address(a);

Options

Attempts left: 1/2

This problem may have one or more correct answers

- *a;
- a;
- &a; ✓
- address(a);

Correct Answer

Q3:-

Which of the following gives the memory address of variable 'b' pointed by pointer 'a' i.e.

```
int b = 10;  
int *a = &b;
```

Options

Attempts left: 1/2

This problem has only one correct answer

- a ✓
- *a
- &a
- address(a)

Correct Answer

Q4:-

What will happen in this code?

```
int a = 100, b = 200;  
int *p = &a, *q = &b;  
p = q;
```

Options

Attempts left: 1/2

This problem may have one or more correct answers

- b is assigned to a
- p now points to b ✓
- a is assigned to b
- q now points to a

Q5:-

What will be the output?

Send Feedback

```
int a;  
int b = 17;  
int *c = &b;  
*c = 7;  
cout << a << " " << b << endl;
```

Options

Attempts left: 1/2

This problem may have one or more correct answers

- 7 17
- 17 7
- 7 7 ✓
- 17 17

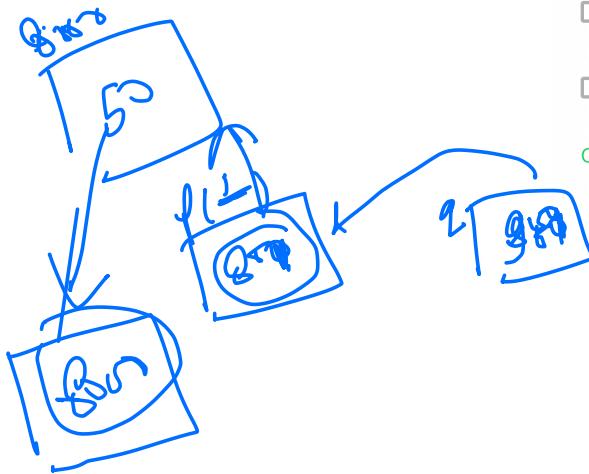
Correct Answer

Q6:-

What will be the output ?

[Send Feedback](#)

```
int a = 50;
int *ptr = &a;
int *q = ptr;
(*q)++;
cout << a << endl;
```



Options

Attempts left: 1/2

This problem may have one or more correct answers

- 50
- 51 ✓
- Error
- None of these

Correct Answer

Q7:-

What will be the output ?

[Send Feedback](#)

```
int a = 50;
int *ptr = &a;
cout << (*ptr)++ << " ";
cout << a << endl;
```



Options

Attempts left: 0/2

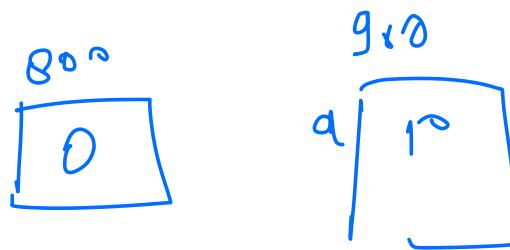
This problem may have one or more correct answers

- 50 51 ✓ 51
- 51 50
- 51 51
- 50 50

The solution to this problem has been viewed

Q8:-

```
int *ptr = 0;  
int a = 10;  
*ptr = a;  
cout << *ptr << endl;
```



ptr = 10
out [] *ptr [and]
Options Attempts left: 1/2

This problem may have one or more correct answers

- 10
- 0
- Error ✓
- None of these

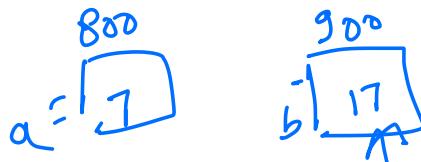
Correct Answer

NOTE :- we can never assign direct value to any pointer.

Q9:-

What will be the output ?

```
int a = 7;  
int b = 17;  
int *c = &b;  
a = *c;  
*c = *c + 1;  
cout << a << " " << b << endl;
```



$a < 17$
 $*c = 10$

$a < 17$
 $b < 10$

Correct Answer

Attempts left: 1/2

Options
This problem may have one or more correct answers

18 18

7 18

17 17

17 18 ✓

:-

What will be the output ?

```
float f = 10.5;  
float p = 2.5;  
float* ptr = &f;  
(*ptr)++;  
*ptr = p;  
cout << *ptr << " " << f << " " << p;
```

2.5 2.5 2.5

Options

Attempts left: 1/2

This problem may have one or more correct answers

- 2.5 10.5 2.5
- 2.5 11.5 2.5
- 2.5 2.5 2.5 ✓
- 11.5 11.5 2.5

Correct Answer

Topic :- Pointer Airthmetic

If u generally find out the size of pointer/ double pointer it will be 8 depends on compiler.

e.g :- sizeof(p)

```
int *p;  
char *c;  
double *pd;
```

```
1 #include <iostream>  
2 using namespace std;  
3  
4 int main() {  
5     int i = 10;  
6     int* p = &i;  
7  
8     cout << p << endl;  
9     p = p + 2;  
10    cout << p << endl;  
11  
12    cout << p << endl;  
13    p = p - 2;  
14    cout << p << endl;  
15  
16    double d = 102.3;  
17    double * dp = &d;  
18    cout << dp << endl;  
19    dp++;  
20    cout << dp << endl;  
21 }  
22
```

```
Codings-Mac-mini:~ codingninjastudio$ ./  
0x7fff5dceab3c  
0x7fff5dceab44  
0x7fff5dceab44  
0x7fff5dceab3c  
0x7fff5dceab28  
0x7fff5dceab30  
Codings-Mac-mini:~ codingninjastudio$ █
```

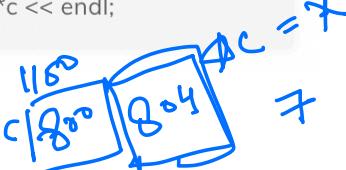
Practice Questions :-

Q1:-

What is the output

[Send Feedback](#)

```
int a = 7;  
int *c = &a;  
c = c + 1;  
cout << a << " " << *c << endl;
```

Q2:- a 

Options

Attempts left: 1/2

This problem has only one correct answer

Garbage_value 7

7 Garbage_value ✓

8 8

7 7

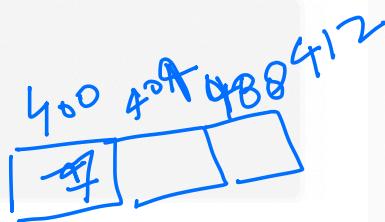
Correct Answer

Fill the output

[Send Feedback](#)

Assume memory address of variable 'a' is : 400
(and an integer takes 4 bytes), what will be the output -

```
int a = 7;  
int *c = &a;  
c = c + 3;  
cout << c << endl;
```



Answer

Type here

412



Correct Answer

Q3:-

Assume memory address of variable 'a' is : 200
and a double variable is of size 8 bytes, what will be the output -

```
double a = 10.54;  
double *d = &a;  
d = d + 1;  
cout << d << endl;
```

Answer

Type here

208



Correct Answer

Topic :- Array and Pointer

```
-- vi arrays.cpp
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[10];
6     cout << a << endl;
7     cout << &a[0] << endl;
8 }
9
```

```
./a.outCodings-Mac-mini:~ codingninjastud
0x7fff59d3bb70
0x7fff59d3bb70
Codings-Mac-mini:~ codingninjastudio$
```

it's mean we can treat a just like address of a[0];

$*(\text{a} + \text{i}) \rightarrow \text{a}[\text{i}]$
 $*(\text{a} + \text{i}) \rightarrow \text{a}[\text{i}]$
or
 $\text{i}[\text{a}] \xrightarrow{\text{convert}} *(\text{i} + \text{a})$
index array

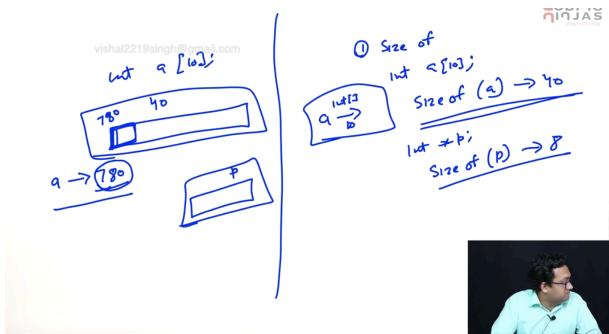
If u want u can access i'th element by doing any one of given thing:-

1. $\text{a}[\text{i}]$
2. $*(\text{a} + \text{i})$
3. $\text{i}[\text{a}]$

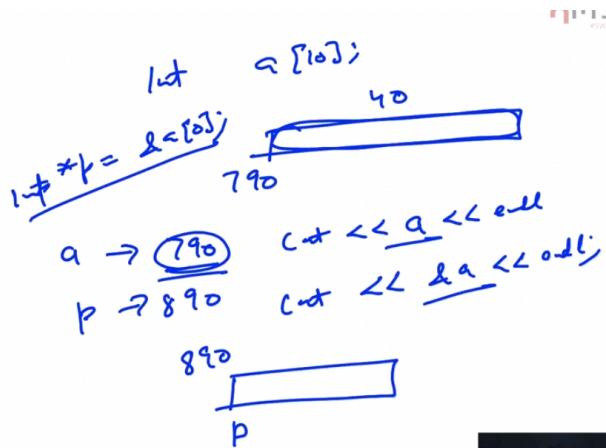
all are going to give same output

Few differences :-

1.



2. & operator



3. `int *p = &a[0];` it is storing 8 bytes separately

Notes :- values of symbol table can not be change ek baar jo value store ho gai vo hi rahegi.

we can assign array to any pointer .
but pointer can be assigned to an array.
e.g:-

~~a = p~~
p = a

```

1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[10];
6     cout << a << endl;
7     cout << &a[0] << endl;
8
9     a[0] = 5;
10    a[1] = 10;
11    cout << *a << endl;
12    cout << *(a + 1) << endl;
13
14    int* p = &a[0];
15
16    cout << a << endl;
17    cout << p << endl;
18
19    cout << &p << endl;
20    cout << &a << endl;
21
22    cout << sizeof(p) << endl;
23    cout << sizeof(a) << endl;
24
25    p = p + 1;
26    a = a + 1;
27 }
28
29
30

```

Codings-Mac-mini:~ codingninjastudio\$ g++ arrays_pointers.cpp
^[[ACodings-Mac-mini:~ codingninjastudio\$./a.out
0x7fff54254b70
0x7fff54254b70
5
10
0x7fff54254b70
0x7fff54254b70
0x7fff54254ac8
0x7fff54254b70
8
40
Codings-Mac-mini:~ codingninjastudio\$ g++ arrays_pointers.cpp
arrays_pointers.cpp:26:4: error: array type 'int [10]' is not assignable
 a = a + 1;
 ^
1 error generated.
Codings-Mac-mini:~ codingninjastudio\$ g++ arrays_pointers.cpp

a can not be reassigned agin bcoz we have not any other value correspoing to a

Correct way

```

1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[10];
6     cout << a << endl;
7     cout << &a[0] << endl;
8
9     a[0] = 5;
10    a[1] = 10;
11    cout << *a << endl;
12    cout << *(a + 1) << endl;
13
14    int* p = &a[0];
15
16    cout << a << endl;
17    cout << p << endl;
18
19    cout << &p << endl;
20    cout << &a << endl;
21
22    cout << sizeof(p) << endl;
23    cout << sizeof(a) << endl;
24
25    p = p + 1;
26    p = a + 1;
27 }
28
29
30

```

Practice questions

a[5]

Q1:-

What is the output
[Send Feedback](#)

Assume integer takes 4 bytes and integer pointer 8 bytes.

```
int a[5];
int *c;
cout << sizeof(a) << " " << sizeof(c);
```

Options Attempts left: 1/2
This problem has only one correct answer

8 8
 5 8
 20 8 ✓
 20 4

[Correct Answer](#)

Q2:-

Fill the output
[Send Feedback](#)

```
int a[] = {1, 2, 3, 4};
cout << *(a) << " " << *(a+1);
```

Answer
Type here
1 2 ✓

Correct Answer

Q3:-

Fill the output
[Send Feedback](#)

Assume that address of 0th index of array 'a' is : 200.
What is the output -

```
int a[6] = {1, 2, 3};
cout << a << " " << &a;
```

Options Attempts left: 0/2
This problem has only one correct answer

Error
 200 204
 200 200 ✓
 1 200
 200 1

[Correct Answer](#)

Q4:-

Fill the output
[Send Feedback](#)

Assume that address of 0th index of array 'a' is : 200. What is the output -

```
int a[6] = {1, 2, 3};
cout << (a + 2);
```

Answer
Type here
208 ✓

Correct Answer

Q5:-

What is the output

[Send Feedback](#)

Assume address of 0th index of array 'a' is 200.

What is the output -

```
int a[6] = {1, 2, 3};  
int *b = a;  
cout << b[2];
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem has only one correct answer

- Error
- 3 ✓
- 1
- 200
- 212

[Correct Answer](#)

Q6:-

What is the output

[Send Feedback](#)

Assume address of 0th index of array 'a' is 200.

What is the output -

```
int a[] = {1, 2, 3, 4, 5};  
cout << *(a) << " " << *(a + 4);
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem has only one correct answer

- Error
- 200 216
- 1 5 ✓
- None of these

[Correct Answer](#)

Q7:-

What is the output

[Send Feedback](#)

```
int a[] = {1, 2, 3, 4};  
int *p = a+3;  
cout << *p << endl;
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem has only one correct answer

- 1
- 2
- Garbage value
- Error ✓

[Correct Answer](#)

Topic :- Character and Pointer

#they behave lit bit differently

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[] = {1,2,3};
6     char b[] = "abc";
7     cout << a << endl;
8     cout << b << endl;
9
10    char* c;
11 }
```

0x7ffff57ecab4c
abc

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[] = {1,2,3};
6     char b[] = "abc";
7     cout << a << endl;
8     cout << b << endl;
9
10    char* c = &b[0];
11    cout << c << endl;
12
13 }
14
```

0x7ffff58f29b4c
abc
abc

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int a[] = {1,2,3};
6     char b[] = "abc";
7     cout << a << endl;
8     cout << b << endl;
9
10    char* c = &b[0];
11    cout << c << endl;
12
13    char c1 = 'a';
14    char* pc = &c1;
15
16    cout << c1 << endl;
17    cout << pc << endl;
18 }
19
```

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5
6     char str[] = "abcde" →
7     char* pstr = "abcde";
8
9
10    int a[] = {1,2,3};
11    char b[] = "abc";
12    cout << a << endl;
13    cout << b << endl;
14
15    char* c = &b[0];
16    cout << c << endl;
17
18    char c1 = 'a';
19    char* pc = &c1;
20
21    cout << c1 << endl;
22    cout << pc << endl;
23 }
24
```

Practic

Q1:-

Pointers Output
[Send Feedback](#)

What will be the output ?

```
char ch = 'a';
char* ptr = &ch;
ch++;
cout << *ptr << endl;
```

Handwritten notes:

ch = a 1b
*
ptr = 1b
ch++; b
cout <<

You have max 2 attempts to score in this question.

Options Attempts left: 1/2

This problem may have one or more correct answers

a
 b ✓
 97
 98

Correct Answer

Q2:-

What is the output
[Send Feedback](#)

Assume address of 0th index of array 'b' is 200. What is the output -

```
char b[] = "xyz";
char *c = &b[0];
cout << c << endl;
```

You have max 2 attempts to score in this question.

Options Attempts left: 1/2

This problem has only one correct answer

200
 x
 xyz ✓
 None of these

Correct Answer

Q3:-

Fill the output
[Send Feedback](#)

```
char s[] = "hello";
char *p = s;
cout << s[0] << " " << p[0];
```

Answer
Type here
h h ✓

Correct Answer

Q4:-

What is the output
[Send Feedback](#)

Assume address of 0th index of array 'b' is 200. What is the output -

```
char b[] = "xyz";
char *c = &b[0];
c++;
cout << c << endl;
```

You have max 2 attempts to score in this question.

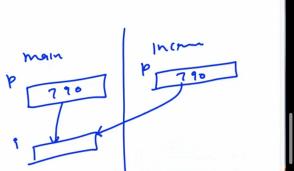
Options Attempts left: 1/2

This problem has only one correct answer

201
 y
 xyz
 yz ✓

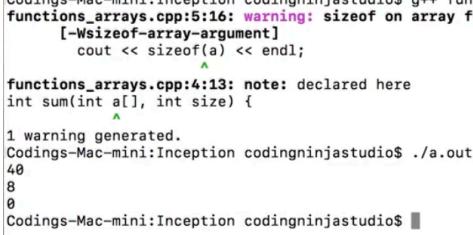
Correct Answer

Topic :- Pointer and functions



```
1 #include <iostream>
2 using namespace std;
3
4 void print(int* p) {
5     cout << *p << endl;
6 }
7
8 void incrementPointer(int* p) {
9     p = p + 1;
10 }
11
12 void increment(int* p) {
13     (*p)++;
14 }
15
16 int main() {
17     int i = 10;
18     int *p = &i;
19
20     print();
21
22     cout << p << endl;
23     incrementPointer(p);
24     cout << p << endl;
25
26     cout << *p << endl;
27     increment(p);
28     cout << *p << endl;
29 }
30
31
32
33
functions_pointers.cpp* 38L, 347C written
```

```
1 #include <iostream>
2 using namespace std;
3
4 int sum(int a[], int size) {
5     cout << sizeof(a) << endl;
6     return 0;
7 }
8
9 int main() {
10     int a[10];
11     cout << sizeof(a) << endl;
12     cout << sum(a, 10) << endl;
13 }
14
```



```
Codings-Mac-mini:inception codingninjastudio$ g++ run
functions_arrays.cpp:5:16: warning: sizeof on array f
                                [-Wsizeof-array-argument]
                                    cout << sizeof(a) << endl;
functions_arrays.cpp:4:13: note: declared here
int sum(int a[], int size) {
                                ^
1 warning generated.
Coding-Mac-mini:Inception codingninjastudio$ ./a.out
40
8
0
Coding-Mac-mini:Inception codingninjastudio$
```

Practice Questions:-

Q1:-

Pointers Output
Send Feedback

You have max 2 attempts to score in this question.

Figure out the correct output of the following code.

```
void changeSign(int *p){
    *p = (*p) * -1;
}

int main(){
    int a = 10;
    changeSign(&a);
    cout << a << endl;
}
```

Options Attempts left: 1/2

This problem may have one or more correct answers

-10 ✓

10

Error

None of the above

[Correct Answer](#)

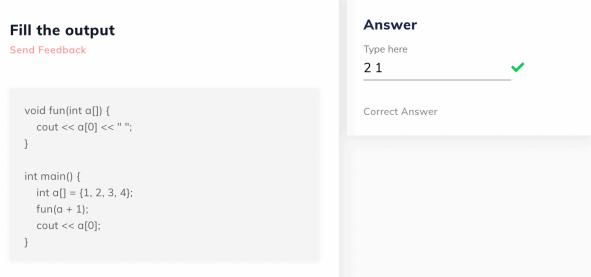
Q2:-

Fill the output
[Send Feedback](#)

```
void fun(int a[]){  
    cout << a[0] << endl;  
}  
  
int main() {  
    int a[] = {1, 2, 3, 4};  
    fun(a + 1);  
    cout << a[0];  
}
```

Answer
Type here
2 1 ✓

Correct Answer



Q3:-

Pointers Output
[Send Feedback](#)

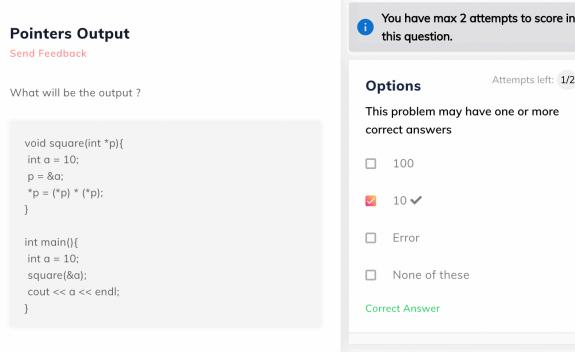
What will be the output ?

```
void square(int *p){  
    int a = 10;  
    p = &a;  
    *p = (*p) * (*p);  
}  
  
int main(){  
    int a = 10;  
    square(&a);  
    cout << a << endl;  
}
```

Options Attempts left: 1/2
This problem may have one or more correct answers

100
 10 ✓
 Error
 None of these

Correct Answer



Double Pointer

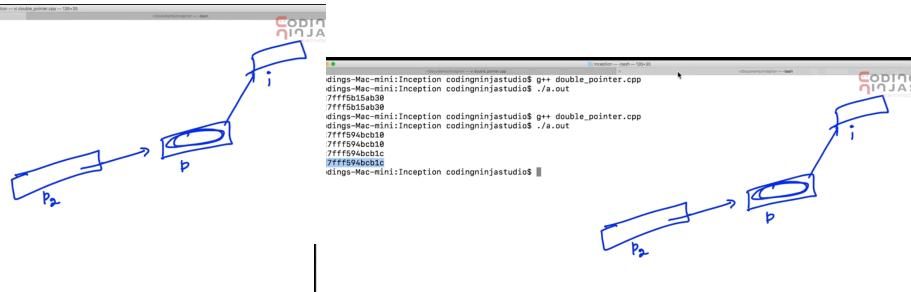
why we use $*p$ not pointer p bcoz
difference in size
we should have idea that
its int, char type
how many bits
it allocated.

int * p = &i;
pointer p = &i;

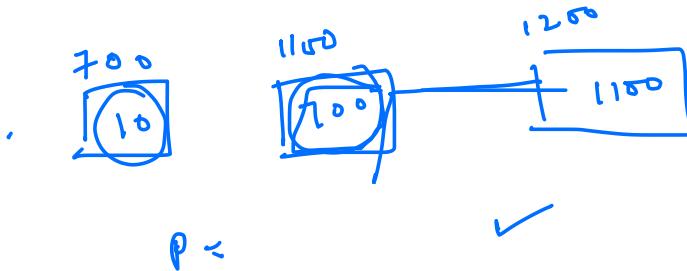
int * p = &i;
int * p2 = &p;

```
~\Documents\Ino
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int i = 10;
6     int * p = &i;
7
8     int ** p2 = &p;
9     cout << p2 << endl;
10    cout << &p << endl;
11 }
12
```

```
Codings-Mac-mini:In
0x7fff5b15ab30
0x7fff5b15ab30
```



$$i = *p = **p_2$$



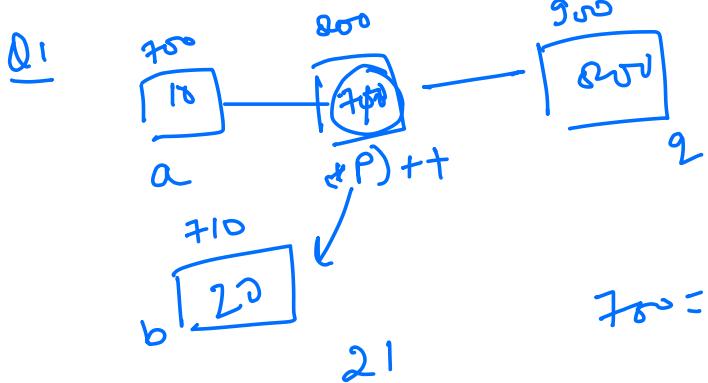
```

1 #include <iostream>
2 using namespace std;
3
4 void increment1(int** p) {
5     *p = p + 1; ✗
6 }
7
8 void increment2(int** p) ✓
9     *p = *p + 1;
10
11
12 void increment3(int** p) {
13     **p = **p + 1;
14 }
15
16 int main() {
17     int i = 10;
18     int* p1 = &i;
19
20     int** p2 = &p1;
21     cout << p2 << endl;
22     cout << *p2 << endl;
23
24     cout << p << endl;
25     cout << *p1 << endl;
26     cout << *i << endl;
27
28     cout << i << endl;
29     cout << *p << endl;
30     cout << **p2 << endl;
31 }
32
33

```

"double_pointer.cpp" 32L, 487C written

Practice Questions :-



10

21

What will be the output ?

[Send Feedback](#)

You have max 2 attempts to score in this question.

Attempts left: 1/2

Options

This problem may have one or more correct answers

- 10 21 ✓
- 11 20
- 11 21
- 10 20

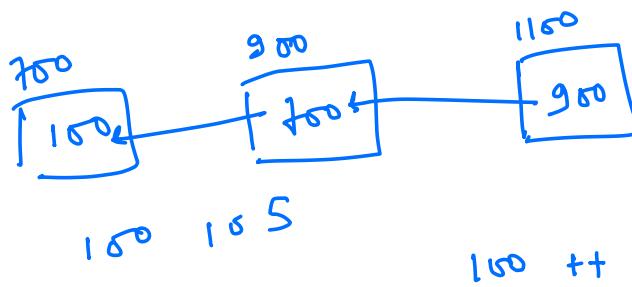
[Correct Answer](#)

```

int a = 10;
int *p = &a;
int **q = &p;
int b = 20;
*q = &b;
(*p)+=;
cout << a << " " << b << endl;

```

Q2:-



What will be the output ?

[Send Feedback](#)

```
int a = 100;
int *p = &a;
int **q = &p;
int b = (**q)++ + 4;
cout << a << " " << b << endl;
```

You have max 2 attempts to score in this question.

101 + 4
Attempts left: 0/2

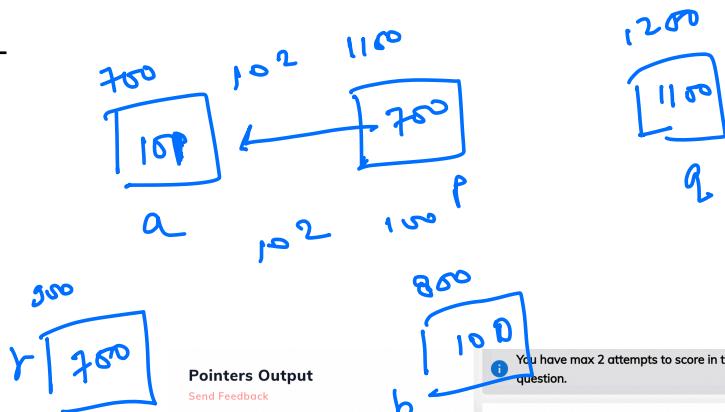
Options

This problem may have one or more correct answers

- 100 104
- 101 104 ✓
- 101 105
- 100 105

[Correct Answer](#)

Q3:-



Pointers Output

[Send Feedback](#)

What will be the output ?

```
int a = 100;
int *p = &a;
int *q = &p;
int b = (**q)++ + 4;
int *r = *q;
(*r)++;
cout << a << " " << b << endl;
```

You have max 2 attempts to score in this question.

Attempts left: 1/2

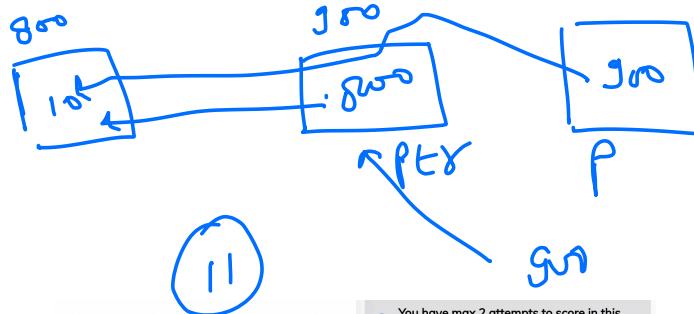
Options

This problem may have one or more correct answers

- 102 100 ✓
- 101 100
- 101 101
- 102 101

[Correct Answer](#)

Q4:-



Pointers Output

[Send Feedback](#)

What will be the output ?

```
void increment(int **p){  
    (*p)++;  
}
```

```
int main(){  
    int num = 10;  
    int *ptr = &num;  
    increment(&ptr);  
    cout << num << endl;  
}
```

You have max 2 attempts to score in this question.

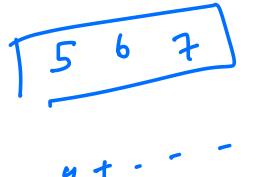
Options

Attempts left: 1/2

This problem may have one or more correct answers

- 10
- 11 ✓
- Error
- None of these

[Correct Answer](#)



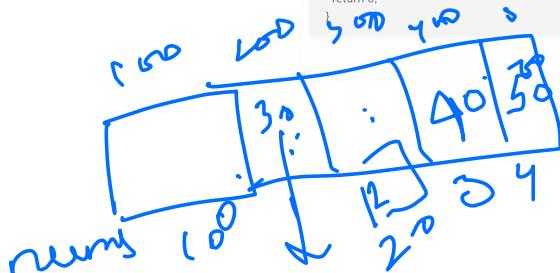
5 6 7
p + - - - 9

Pointers Output

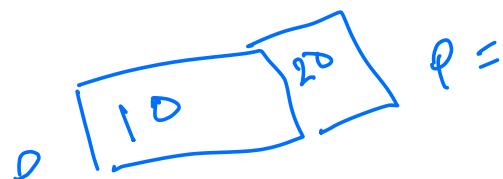
[Send Feedback](#)

Find the output :

```
#include <iostream>  
using namespace std;  
int main()  
{  
    int arr[] = {4, 5, 6, 7};  
    int *p = (arr + 1);  
    cout << *arr + 9;  
    return 0;
```



10 30 20



p =

Assignment Pointers:-

Pointers Output

[Send Feedback](#)

```
#include <iostream>
using namespace std;
int main ()
{
    int numbers[5];
    int * p;
    p = numbers;
    *p = 10;
    p = &numbers[2];
    *p = 20;
    p--;
    *p = 30;
    p = numbers + 3;
    *p = 40;
    p = numbers;
    *(p+4) = 50;
    for (int n=0; n<5; n++) {
        cout << numbers[n] << ",";
    }
    return 0;
}
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem may have one or more correct answers

- 10,20,30,40,50,
- 50,40,30,20,10,
- 10,30,20,40,50, ✓
- None of these

[Correct Answer](#)

Pointers Output

[Send Feedback](#)

```
#include <iostream>
using namespace std;
int main()
{
    char *ptr;
    char Str[] = "abcdefg";
    ptr = Str;
    ptr += 5;
    cout << ptr;
    return 0;
}
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem may have one or more correct answers

- fg ✓
- cdef
- defg
- abcd

[Correct Answer](#)

Characters & Pointers

[Send Feedback](#)

```
#include <iostream>
using namespace std;
int main()
{
    char arr[20];
    int i;
    for(i = 0; i < 10; i++) {
        *(arr + i) = 65 + i;
    }
    *(arr + i) = '\0';
    cout << arr;
    return 0;
}
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem may have one or more correct answers

- ABCDEFGHIJ ✓
- AAAAAAAA
- JJJJJJJJ
- none of the mentioned

[Correct Answer](#)

You have max 2 attempts to score in this question.

Options Attempts left: 0/2

This problem may have one or more correct answers

geeksforgeeks geeksquiz geeksforgeeks
 geeksquiz geeksforgeeks geeksquiz gee
 geeksquiz geeksforgeeks geeksforgeeks
 Compiler Error

Correct Answer

```
#include<iostream>
using namespace std;
void swap (char *x, char *y)
{
    char *t = x;
    x = y;
    y = t;
}

int main()
{
    char *x = "geeksquiz";
    char *y = "geeksforgeeks";
    char *t;
    swap(x, y);
    cout<<x << " " <<y;
    t = x;
    x = y;
    cout<<" " <<x << " " <<y;
    return 0;
}
```

Note: On executing this code, a warning will

You have max 2 attempts to score in this question.

Options Attempts left: 2/2

This problem may have one or more correct answers

90.5 3 ✓
 90.5 12
 10.0 12
 undefined

Correct Answer

```
#include<iostream>
using namespace std;
int main()
{
    float arr[5] = {12.5, 10.0, 13.5, 90.5, 0.5};
    float *ptr1 = &arr[0];
    float *ptr2 = ptr1 + 3;
    cout << *ptr2 << endl;
    cout << *ptr2 - ptr1;
    return 0;
}
```

Pointers Output

[Send Feedback](#)

```
#include<iostream>
using namespace std;
int main()
{
    char st[] = "ABCD";
    for(int i = 0; st[i] != '\0'; i++) {
        cout << st[i] << *(st+i) << *(i+st) << i[st];
    }
    return 0;
}
```

You have max 2 attempts to score in this question.

Attempts left: 1/2

Options

This problem may have one or more correct answers

AAAABBBBCCCCDDDD

ABCD

A65AAB66BBC67CCD68DD ✓

Compilation Error

[Correct Answer](#)

You have max 1 attempt to score in this question.

Attempts left: 1/2

Options

This problem may have one or more correct answers

7 6 14

14 7 5

14 7 6 ✓

14 6 5

[Correct Answer](#)

```
#include <iostream>
using namespace std;
void Q(int z)
{
    z += z;
    cout << z << endl;
}

void P(int *y)
{
    int x = *y + 2;
    Q(x);
    *y = x - 1;
    cout << x << endl;
}

int main()
{
    int x = 5;
    P(&x);
    cout << x;
    return 0;
}
```

Pointers Output

[Send Feedback](#)

```
#include<iostream>
using namespace std;
int main()
{
    int ***r, **q, *p, i=8;
    p = &i;
    (*p)++;
    q = &p;
    (*q)++;
    r = &q;
    cout<<*p << " " << *q << " " << ***r;
    return 0;
}
```

You have max 2 attempts to score in this question.

Attempts left: 1/2

Options

This problem may have one or more correct answers

8 8 8

10 10 10 ✓

9 10 11

9 10 10

[Correct Answer](#)

Pointers Output

[Send Feedback](#)

```
int f(int x, int *py, int **pz) {
    int y, z;
    *pz += 1;
    z = *pz;
    *py += 2;
    y = *py;
    x += 3;
    return x + y + z;
}

int main() {
    int c, *b, **a;
    c = 4;
    b = &c;
    a = &b;
    cout << f(c, b, a);
    return 0;
}
```

You have max 2 attempts to score in this question.

Options

Attempts left: 1/2

This problem may have one or more correct answers

- 21
- 18
- 19 ✓
- 24

[Correct Answer](#)