



Practice Problems for Finals



اَللّٰهُمَّ ارْزُقْنِيْ عِلْمًا نَّافِعًا وَاسِعًا عَمِيْقًا

اَللّٰهُمَّ ارْزُقْنِيْ رِزْقًا وَّاسِعًا حَلَالًا طَيِّبًا
مُّبَارَكًا مِّنْ عِنْدِكَ

Arrays: Review

- What will be the **output** of the program?

```
int a[10] = {10};  
for (int x = 0; x < 10; x++)  
{  
    cout << a[x] << endl;  
}
```

Arrays: Review

- What will be the **output** of the program?

```
string arr = "Hello\0World";  
cout << arr;
```

Arrays: Review

- What will be the **output** of the program?

```
char name[5] = {'a', 'b', 'c', 'd', 'e'};  
cout << name << endl;
```

Arrays: Review

- What will be the output of the program if the array begins at address **65486**?

```
int main()
{
    int arr[] = {12, 14, 15, 23, 45};
    cout << arr << endl << &arr;
}
```

Arrays: Review

- What will be stored in `beta[3][3]`?

```
for (int i = 0; i < 3; i++)  
    for (int j = 0; j < 3; j++)  
        beta[i][j] = i * j;
```


Arrays: Review

- What will be the output?

```
void print(int arr[], int size)
{
    for(int x = 0; x < size; x++)
    {
        cout << arr[x] << endl;
    }
}
```

```
main()
{
    int arr[3][3] = {
                        {1,2,3},
                        {4,5,6},
                        {7,8,9}
                    };

    print(arr[2], 3);
    print(arr[1], 3);
    print(arr[0], 3);
}
```

Pointers: Review

- What will be the output?

```
int a = 5, b = 10, c = 15;  
int *p1 = &a, *p2 = &b, *p3 = &c;  
  
*p2 = *p3 - *p1;  
  
cout << *p1 << " " << *p2 << " " << *p3 << endl;
```

Pointers: Review

- What will be the output?

```
int arr[] = {1, 2, 3, 4, 5};  
int *p1 = arr;  
int *p2 = &arr[3];  
  
cout << p2 - p1 << endl;
```

Arrays: Review

- Write a function

bool **myFunction**(int arr[3][3], int colId, int rowID)

That will return true if the specific row is equal to the specific column passed a parameter.

- Write a function

bool **myFunction1**(int arr[3][3], in colId)

That will return true if any of the row is equal to the specific column passed as a parameter

- Write a function

bool **myFunction2**(int arr[3][3])

That will return true if any of the row is equal to any of the column in the 2D array.



Paper Pattern



Finals Paper Pattern

1. Question 1:
Output Based Questions in Parts
2. Question 2:
Design Question to improve the Code
3. Question 3:
Complex Coding Question



Your Feedback



Feedback

1. Course content
2. Class lectures and Labs
3. Course materials
4. Assignments and projects
5. Your Confidence in Programming
6. What Improvements can be done?