

Pointer Exercises

1. What output is produced by the following C++ program segment on execution?

```
#include <iostream>
using namespace std;

int main()
{
    int x;
    int y;
    int *p;
    int *q;
    p = &x;
    q = &y;
    x = 55;
    y = 43;
    *q = 22;
    q = p;
    *p = 33;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```

2. What output is produced by the following C++ program segment on execution?

```
#include <iostream>
using namespace std;

int main()
{
    int x;
    int y;
    int *p;
    int *q;
    x = 123;
    y = 76;
    p = &x;
    q = &y;
    *q = 22;
    *p = *q;
    y = x;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```

3. What output is produced by the following C++ program segment on execution?

```
#include <iostream>
using namespace std;

int main()
{
    int x;
    int y;
    int *p;
    int *q;
    x = 62;
    y = 73;
    p = &x;
    q = &y;
    *q = 22;
    *p = 45;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```

4. What output is produced by the following C++ program segment on execution?

```
#include <iostream>
using namespace std;

int main()
{
    int x;
    int y;
    int *p;
    int *q;
    x = 44;
    y = 71;
    p = &x;
    q = &y;
    *q = 22;
    *p = 45;
    y = x;
    *p = *q;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```

5. What output is produced by the following C++ program segment on execution?

```
#include <iostream>
using namespace std;

int main()
{
    int x;
    int y;
    int *p;
    int *q;
    x = 322;
    y = 55;
    p = &x;
    q = &y;
    *p = 22;
    p = q;
    *q = 42;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```