

## 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;
    x = 12;
    y = 29;
    p = &x;
    q = &y;
    *q = 22;
    *p = 35;
    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 = 34;
    y = 67;
    p = &x;
    q = &y;
    *q = x;
    x = 75;
    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 = 55;
    y = 43;
    p = &x;
    q = &y;
    *q = 22;
    x = y;
    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 = 77;
    y = 52;
    p = &x;
    q = &y;
    *p = 25;
    y = x;
    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 = &x;
    int *q = &y;
    x = 23;
    y = 36;
    *p = *q;
    q = p;
    *q = 87;
    cout << x << " " << y << endl;
    cout << *p << " " << *q << endl;
    return 0;
}
```