

```
#include <iostream>

int main() {
    int x = 3;
    int y = 2;

    int* p = &x;    // Declare a pointer to x
    int* q = &y;    // Declare a pointer to y

    p = q;          // Point the pointer p to the address of q which points to y

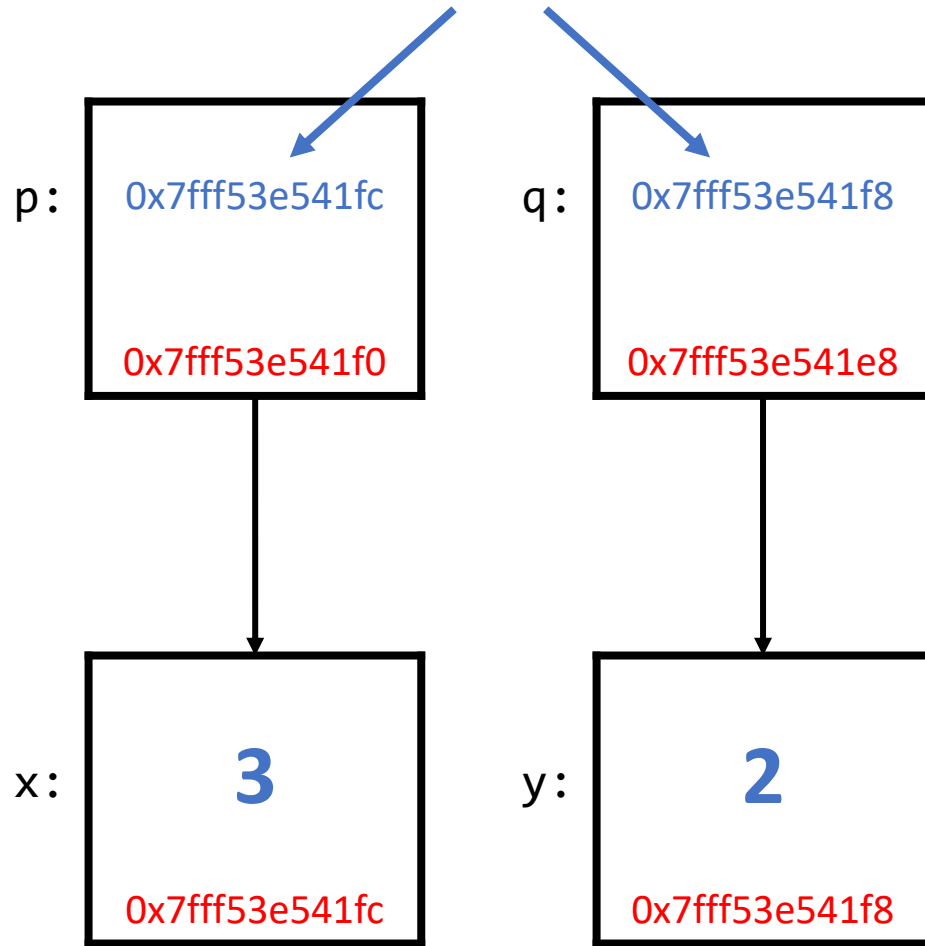
    *p = 42;        // Overwrite the value stored at the address of p. This overwrites y!

    /*
    p and q now both point to y.
    The value of x is still 3, but the value of y is 42
    */

    return 0;
}
```

Code has run to here, next line to execute

Values stored.
These are the addresses of **x** and **y**



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int main() {
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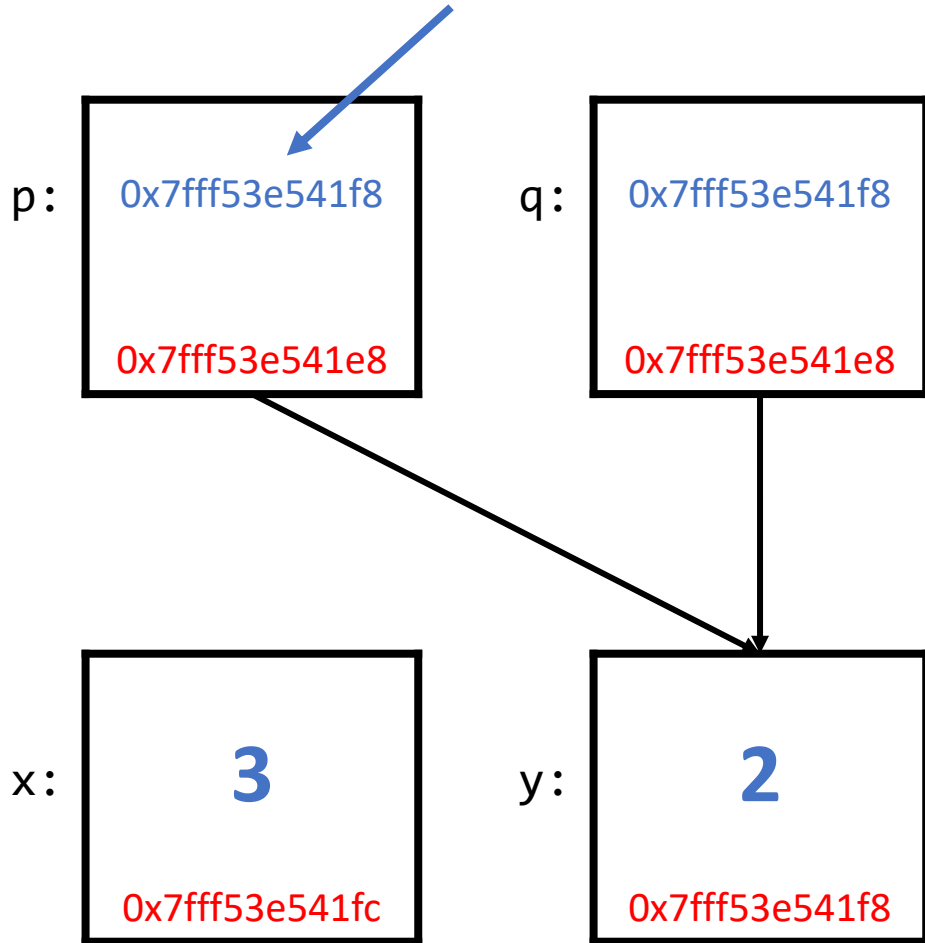
    p = q;          // Point the pointer p to the address of q which points to y
    *p = 42;        // Overwrite the value stored at the address of p. This overwrites y!

    /*
    p and q now both point to y.
    The value of x is still 3, but the value of y is 42
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    return 0;
}
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Update **p** to point to the memory location of **y**



```
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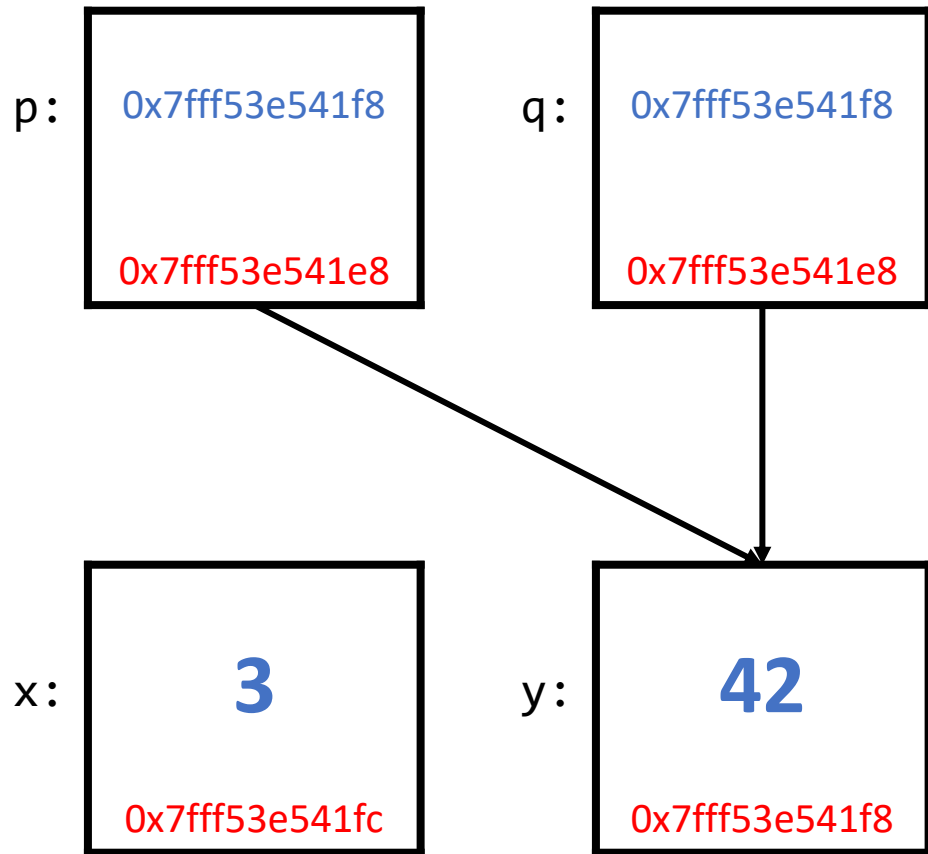
    int* p = &x;    // Declare a pointer to x
    int* q = &y;    // Declare a pointer to y

    p = q;          // Point the pointer p to the address of q which points to y
    *p = 42;        // Overwrite the value stored at the address of p. This overwrites y!

    /*
    p and q now both point to y.
    The value of x is still 3, but the value of y is 42
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}
```

Update value of **y** using pointer **p** to **42**



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int main() {
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    int* p = &x;    // Declare a pointer to x
    int* q = &y;    // Declare a pointer to y

    p = q;          // Point the pointer p to the address of q which points to y

    *p = 42;        // Overwrite the value stored at the address of p. This overwrites y!

    /*
    p and q now both point to y.
    The value of x is still 3, but the value of y is 42
    */

    return 0;
}
```

← Code has run to here, next line to execute.
Program would end.