

```
// This program demonstrates the use of pointer variables
// It finds the area of a rectangle given length and width
// It prints the length and width in ascending order
```

```
// Michael Steele
```

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int length;    // holds length
```

```
    int width;     // holds width
```

```
    int area;      // holds area
```

```
    int *lengthPtr = nullptr;    // int pointer which will be set to point to length
```

```
    int *widthPtr = nullptr;     // int pointer which will be set to point to width
```

```
    cout << "Please input the length of the rectangle" << endl;
```

```
    cin >> length;
```

```
    cout << "Please input the width of the rectangle" << endl;
```

```
    cin >> width;
```

```
    // Fill in code to make lengthPtr point to length (hold its address)
```

```
    lengthPtr = &length;
```

```
    // Fill in code to make widthPtr point to width (hold its address)
```

```
    widthPtr = &width;
```

```
    area = *lengthPtr + *widthPtr; // Fill in code to find the area by using only the pointer
variables
```

```
    cout << "The area is " << area << endl;
```

```
    if ( *lengthPtr > *widthPtr )// Fill in the condition length > width by using only the pointer
variables)
```

```
        cout << "The length is greater than the width" << endl;
```

```
    else if ( *widthPtr > *lengthPtr)// Fill in the condition of width > length by using only the
pointer variables)
```

```
        cout << "The width is greater than the length" << endl;
```

```
    else
        cout << "The width and length are the same" << endl;

    return 0;
}
```