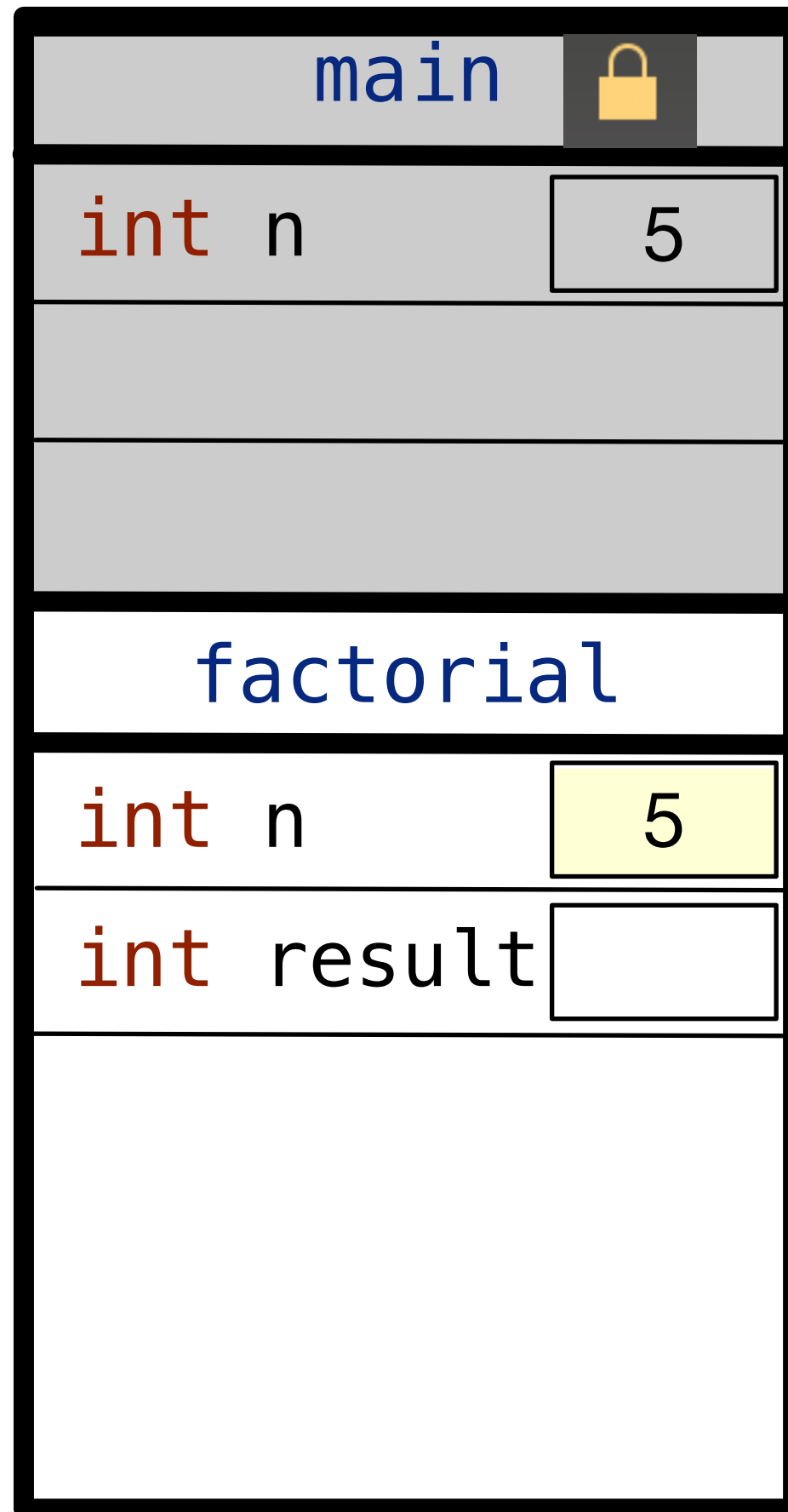## Main memory

Will be destroyed when factorial function returns

```cpp
int factorial(int n);

int main(void) {
  int n;
  cout << "Enter a positive integer: ";
  cin >> n;
  cout << "The factorial of " << n << " is " <<
    factorial(n) << endl;
  return 0;
}
```

Pass-by-value

```cpp
int factorial(int n) {
  int result = 1;
  for (int i = 1; i <= n; i++) {
    result *= i;
  }
  return result;
}
```