```cpp
1: #include <algorithm>
2: #include "Payoff.h"
3:
4: namespace mctr {
5:     Payoff::Payoff(const double strike, Payoff::OptionType type)
6:     : _strike(strike), _type(type)
7:     {
8:
9:     }
10:
11:     double Payoff::operator()(const double spot) const
12:     {
13:         if (_type == Payoff::call) {
14:             return std::max(_strike - spot, 0.0);
15:         }
16:
17:         return std::max(spot - _strike, 0.0);
18:     }
19:
20:
21:
22: } // namespace mctr
23:
```