

```
1 #include <iostream>
2 #include <thread>
3
4 void f1() { std::cout << "Hello from f1" << std::endl; }
5 void f2(int a, int b) {
6     std::cout << "f2 invoked with " << a << ", " << b << std::endl;
7 }
8
9 int main() {
10    std::thread t1(f1);
11    t1.join();
12    std::thread t2(f2, 1, 2);
13    t2.join();
14    std::thread t3(f2, 5, 7);
15    t3.join();
16    int i = 7;
17    std::thread t4([&]() {
18        std::cout << "lambda invoked with captured i == " << i << std::endl;
19    });
20    t4.join();
21    std::thread t5(
22        [&](int a) {
23            std::cout << "lambda invoked with captured i == " << i
24                << " and a == " << a << std::endl;
25        },
26        1024);
27    t5.join();
28    auto f = [&](int k) {
29        f1();
30        f2(i, i * k);
31    };
32    std::thread t6(f, 99);
33    t6.join();
34 }
```

FIGURE A.7 Examples of creating and joining threads in C++.