Set Exercises

Set

- What are the two main characteristics of std::set?
- Which data structure is used to implement it?

Adding and removing elements

- Which member function is called to add elements to an std::set?
- What happens if the element we want to add is already present in the set?
- How can we find out whether this has happened?

Set example

- Write a program that creates a set containing the elements 6, 7, 4, 5 and 3
- Add an element with key 3 to the set. Does this succeed? If not, why not?
- Erase the element with key 3 and try again. Does this succeed? If not, why not?

Finding Elements

- Write a simple program that populates an std::set object
- Use the find() and count() member functions to check whether an element with a given key is in the set
- Make sure your program works correctly if the element is not present

std::set and Algorithms

- What type of algorithms from the Standard Library can be used with a set?
- Why can we not use other algorithms?

std::set Pros and Cons

- Give an example of a programming problem where std::set could be useful