Multiple Threads Solutions

Multiple Threads

- Write a program which starts three threads
  - The source code for the solutions is available as a downloadable resource
- The thread function prints a message with a number related to the thread
- Each thread should sleep for a different amount of time before printing the message
  - What is the purpose of sleeping?
  - It ensures that the threads do not interfere with each other

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- What is meant by the following, in the context of C++ threads?
  - Interleaved execution
    - A thread can be suspended, allowing another thread to run. This gives the appearance that the threads execute in between each other
  - Memory location
    - A scalar object, such as a variable, pointer or a scalar member of a class or struct. Also a compound object which does not perform internal synchronization, such as a Standard Library container
  - Data race
    - Multiple threads access the same memory location, with at least one thread modifying it, without any synchronization between the threads
  - Race condition
    - The result of a program execution depends on the order in which threads are scheduled