However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
Also, those involved with software development may at times engage in reverse engineering, which is the practice of seeking to understand an existing program so as to re-implement its function in some way.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
One approach popular for requirements analysis is Use Case analysis.  
Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly.  
Relatedly, software engineering combines engineering techniques and principles with software development.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
Transpiling on the other hand, takes the source-code from a high-level programming language and converts it into bytecode.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.