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Chapter 15 review questions

1. A large number of general-purpose registers, and/or the use of compiler technology to optimize register usage. A limited and simple instruction set. An emphasis on optimizing the instruction pipeline.
2. Two basic methods are likely, one based on software and the other on hardware. The software method is to depend on the compiler to make the most of register usage. The compiler will try to assign registers to those variables that will be used the most in a given time period. This method requires the use of refined program-analysis algorithms. The hardware method is simply to use more registers so that more variables can be held in registers for longer periods of time.