

1. Does stepwise refinement correspond to iteration or incrementation?
2. How are a workflow, an artifact, and a baseline related?
3. What is the connection between the waterfall model and the iterative-and-incremental model?
4. Suppose you have to build a product to determine the cube root of 9384.2034 to four decimal places. Once the product has been implemented and tested, it will be thrown away. Which life-cycle model would you use? Give reasons for your answer.
5. You are a software engineering consultant and have been called in by the vice-president for finance of a corporation that manufactures tires and sells them via its large chain of retail outlets. She wants your organization to build a product that will monitor the company's stock, starting with the purchasing of the raw materials and keeping track of the tires as they are manufactured, distributed to the individual stores, and sold to customers. What criteria would you use in selecting a life-cycle model for the project? List the risks involved in developing the software. How would you attempt to mitigate each risk?
6. Your development of the stock control product for the tire company is so successful that your organization decides that it must be reimplemented as a package to be sold to a variety of different organizations that manufacture and sell products via their own retailers. The new product must therefore be portable and easily adapted to new hardware and/or operating systems. How would the criteria you use in selecting a life-cycle model for this project differ from those in your answer to the previous question?
7. Describe the type of situation where open-source software development is inappropriate.
8. Describe the sort of product that would be an ideal application for the spiral life-cycle model.
9. Describe the type of situation where the spiral life-cycle model is inappropriate.
10. Describe a risk inherent in using each of the life cycle models