

## Week 8 Select Textbook Homework Solutions

### Chapter 15

- 15.2 It's certainly possible but not very likely. For example, it is doubtful that people spent a lot of time designing a classroom blackboard, yet the blackboard has been (and remains) an effective teaching tool in many mathematics classrooms.
- 15.4 The software dilemma which is trying to decide whether it is more cost effective to expend the resources needed to do something right the first time or spend your resources redoing something that the customer is not happy with.
- 15.5 Good enough software is a lot like student course project software. The software meets the customer's most important needs but is not very robust when it comes to handling errors or unusual processing situations.
- 15.6 The external failure costs are likely to be the most expensive of the four costs of quality. External failures are identified very late in the software life cycle. Most software engineering data suggests that the later an error is discovered the more expensive it is to correct.
- 15.8 Quality and security are not the same thing. Low quality software applications are often found to contain security weaknesses. Likewise, it is possible to have highly secure software which is extremely difficult to use (e.g. very time-consuming authentication process). It is also possible to have software that is very easy to use, with poor security (e.g. no login procedure).
- 15.9 Project managers are notoriously bad at estimating time and costs. Customers frequently make last minute changes and additions to project requirements. This means that developers are always short of time and often find deadlines arriving faster than expected. It is easier to deliver visible functionality and hope the customer is happy than to work on tasks to improve quality when the customer does not see the immediate benefits. Focusing on the former is likely to get the next program increment to the customer on time, doing the latter may make cause the schedule to slip (even though not having to redo things would take less time in the long run).