##### Exercise 1

P1: Testing cannot show absence of defects.   
For example can you have tested a software as thourougly as you can, and think it is correct, but it could show fail in production environment.

P2: You cannot test everything.  
Imagine x input fields with y possible values. To test all combinations, you would need yx tests. That number becomes real big real fast. So a tester should take risks and priorities into consideration.

P3: Early testing: means to start testing as early as possible in the software development life cycle.  
Some benefits are that early-found defects are cheaper to fix and that testers will feel more comfortable with the software product because of early involvement.

P4: Defect clustering: defects are often found in a small number of modules.  
Reasons could be that certain modules are more complex than others or that less skilled programmers wrote that piece of software.

P5: Review of test cases is neccessary, because the same kind of test can only detect a certain number of defects. New bugs will be ignored.

P6: Testing is context dependent means that you need different sets of tests for different kinds of software products. A high level software for a rocket going into space needs far more testing than let’s say a gaming app for a phone.

P7: No errors – false conclusion. A system that is free of errors could still be unusable if the user’s needs are not met.

No objections, all sound like good things to keep in mind. But I can imagine that the practises in real-life look a bit different, with management pushing software teams further and further, trying to squeeze them to save yet another [insert currency].

##### Exercise 2

**a)**

a) Use the V-model to explain how testing can be integrated in the life cycle of a software development project. What are the benefits of using the V-model with regards to the quality of the system, as well as the time and resources used in the development process?

**b)** Is it possible to use the V-model in agile programming development projects? If so, explain how.

**c)** Explain to what extent the V-model ensures the seven test principles from Exercise 1 are safeguarded.

**d)** What is the different between a test level and a test type?

Explain the four different:

-Test levels

-Test types