** Testing Vs Debugging

Traits	Testing	Debugging
1. Defination:	Process of executing a program with the intention or goal of finding errors.	Activity of diagnosing the precise nature of a known error and then correcting it
2. Activity:	Finding error.	Finding precise nature of known error
3. Error correction:	Not included	Included.
4. Input:	Program input	Output of testing
5. Nature of error:	unknown	known

☐ Testing Definitions:

1. Module / Unit Test
2. Integration Test
3. Function Test
4. System Test
5. Acceptance Test
6. Installation Test
7. Simulation Test
8. Field Test

* Module Testing:
verification of a single program module, use
— usually in an isolated environment
→ ~~seed~~ occasionally includes mathematical proofs.

* Integration Testing:
— verification of the interfaces among system parts.
— System parts: modules, components, subsystems.

(Software Engineering :— Martin L. Shooman)

☐ Basic Terminology: (Table 4.3)

1. Testing   2. Verification

3. Validation   4. B Debugging

5. Certification   6. Proof

* Testing:

Process of executing a program with the intention or goal of finding errors.

* Verification:

Attempt to find errors by executing a program in a test or simulate -d environment.

* Validation:

Attempt to find errors by executing a program in a given real environment.

* Debugging:

Activity of diagnosing the precise nature of known error and then correcting the error.

* Proof:

Attempt to find errors in a program without regard to the program's environment.

* Certification:

Authoritative endorsement of the correctness of a program.