

**Homework 2**  
**Software Security (502804-3)**  
**Spring 2022**  
**Due: Wednesday March 9, 2022, 11:59 pm via Blackboard**

**10 points**

Assume that a software system is undergoing system level testing. If you know that the given software system works in average for 680 hours of continuous operations before a failure occurs. Also, for the same software given that the average time it takes to fix faults is three hours.

Answer the following questions:

- 1) What is the Mean Time To Failure (MTTF)?
  
  
  
  
  
  
  
  
  
  
- 2) What is the Mean Time To Repair (MTTR)?
  
  
  
  
  
  
  
  
  
  
- 3) What is the Mean Time Between Failures (MTBF)?
  
  
  
  
  
  
  
  
  
  
- 4) What does this Mean Time Between Failures (MTBF) mean to you?

5) What is the steady state availability (i.e. the percentage the software is operational)?

6) What is the failure rate ( $\lambda$ )?

7) Measure the software reliability.

8) What does  $R(t)$  mean to you?