

Answers to Practice Test 1

Problem 1

1. 0.000244
2. 0.0537
3. 0.225
4. Yes ($p=0.039$)
5. Uniform distribution
6. 0.0159
7. No: this is a-posteriori reasoning.
8. 0.01
9. 0.026
10. 460 days

Problem 2

1. Became shorter ($p=0.0276$)
2. Became shorter ($p=0.00035$)
3. No ($p=0.149$)
4. 9.565
5. 6.58-14.98

Problem 3

1. greenhouse, wateringfreq, wateringtype, insecticide, fertilizer,
greenhouse:insecticide
2. fertilizer
3. greenhouse=F, wateringfreq=72hours, wateringtype=drip,
insecticide=bifenthrin, fertilizer=2-3-1
4. 2611 (2515-2708)

Note – Marking will be based on both the methods and the results. It may be possible to obtain partial credit from a wrong answer, or to lose credit with a nearly-correct answer if the methodology is incorrect or not documented. Some questions may have multiple, equally valid answers. Submissions will require a complete knitted Rmarkdown file including all code chunks.