

TMA4267 Linear statistical models

Spring 2026

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Completed: Part 1, Chapters 3, 4, 5

Week	Tuesday	Thursday	Friday
3	3.1 - 3.5, lecture	3.6 'interactive' assignment 1	Get more help on assignment 1
4	4.1 - 4.3	4.4 'interactive' assignment 2	Get more help on assignments 1 and 2
5	Finish Chap. 4, Start chap. 5	Continue chap. 5	Get more help on assignments 1 and 2
6	5.6 'interactive' assignment 3	(Part 2 start)	Assignments 1, 2, 3, Install R and RStudio

Part 1

- Mean and covariance of random vectors
- Multivariate normal distribution, $Y \sim \text{MVN}(\mu, \Sigma)$
- Linear and quadratic forms
 - Idempotent matrices, especially the centering matrix $(I - (1/n)J)$
 - Independence
 - Chi squared, F and t distributions

Now: Part 2, Chapters 6, 7, 8, 9, 10

Tentative plan

Week	Tuesday	Thursday	Friday
6		Chapter 6 and R	Assignments 1, 2, 3, Install R and RStudio
7	Chapter 7	Assignment 4 Room VE22 - SMASH	
8	Chapter 7	Chapter 8	
9	Assignment 5	Chapter 8	
10	Chapter 9	Assignment 6	
11	Chapter 10		

Part 2

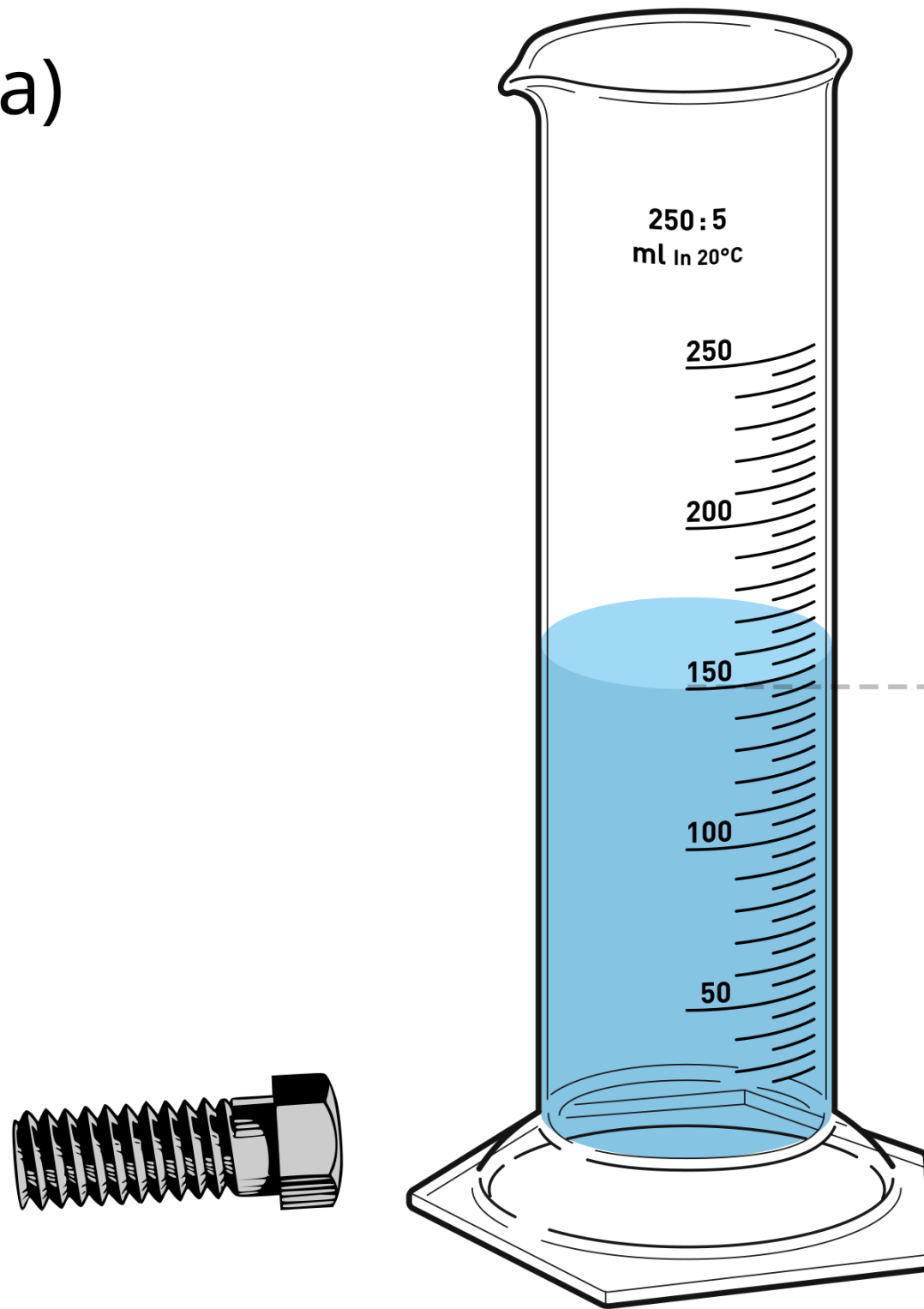
Chapters

- Chapter 6: Simple linear regression (repetition)
- Chapter 7: Multiple regression: Estimation
- Chapter 8: Multiple regression: Tests of hypotheses and confidence intervals
- Chapter 9: Multiple regression: Model validation and diagnostics
- Chapter 10: Multiple regression: Random x 's



7 spheres, known radii

(a)



(b)

