

CONTENTS

Preface

Notation

1. Introduction	Page 1
1.1 Background	
1.2 Data sets	
1.3 Note for teachers	
1.4 Cautionary note	
1.5 Exercises from each Chapter of Practical Geostatistics 2000	
1.5.1 Introduction	
1.5.2 Why a statistical approach?	
1.5.3 Normal (Gaussian) distributions	
1.5.4 Lognormal distributions (and others)	
1.5.5 Discrete distributions	
1.5.6 Hypothesis Testing	
1.5.7 Relationships	
1.5.8 The spatial element	
1.5.9 The semi-variogram	
1.5.10 Estimation and kriging	
2. Answers to: Why a statistical approach?	Page 27
3. Answers to: Normal (Gaussian) distributions	Page 43
4. Answers to: Lognormal distributions (and others)	Page 101
5. Answers to: Discrete distributions	Page 145
6. Answers to: Hypothesis testing	Page 157
7. Answers to: Relationships	Page 165
8. Answers to: The spatial element	Page 187
9. Answers to: The semi-variogram	Page 203
10. Answers to: Estimation and Kriging	Page 247

11. Bonus Answer: Estimation over a mining block **Page 271**

11.1 estimating a mining block

11.1.1 the inter-sample relationships

11.1.2 the relationship between sample and block

11.1.3 the “within block”

11.1.4 the estimation variance

11.2 Alternative answer

11.2.1 estimating the block from face averages

11.2.2 estimating the average value over the face

11.2.3 combining the components of the error

11.3 Summary

Tables

Page 289

Data Sets

Page 333