

Part 5

AN INTRODUCTION TO PROBABILITY MODELLING

- **Normal distributions.**
- **Random variables:**
 - **Continuous;**
 - **Discrete.**
- **Continuous uniform distributions.**
- **Exponential distributions.**
- **Linear combinations:**
 - **A sum (or total);**
 - **A difference;**
 - **An average.**
- **The Central Limit Theorem.**

Part 5 Table of Contents

- Figure 5.1. MODELLING THE SHAPE OF DATA DISTRIBUTIONS.
- †Figure 5.2. PROBABILITY MODELLING: Normal Distributions (video summary).
- Figure 5.3. NORMAL DISTRIBUTIONS: Selected Areas Under the Pd.f.
- Figure 5.4. PROBABILITIES FOR THE STANDARD NORMAL DISTRIBUTION $N(0, 1)$.
- Figure 5.5. NORMAL DISTRIBUTIONS: Finding Normal Probabilities.
- Figure 5.6. PROBABILITY MODELLING: Normal Distribution Examples.
- †Figure 5.7. PROBABILITY MODELLING: Normal Calculations (video summary).
- Figure 5.8. PROBABILITY MODELLING: An Application of the Normal Distribution.
- Figure 5.9. CONTINUOUS RANDOM VARIABLES: Selected Properties.
- Figure 5.10. PROBABILITY MODELLING: Continuous Distribution Examples.
- Figure 5.11. PROBABILITY MODELLING: Continuous Uniform Distributions.
- Figure 5.12. PROBABILITY MODELLING: Exponential Distributions.
- Figure 5.13. PROBABILITY MODELLING: Exponential Distribution Examples.
- Figure 5.14. PROBABILITY MODELLING: Linear Combinations of Random Variables.
- Figure 5.15. PROBABILITY MODELLING: Linear Combinations Examples.
- Figure 5.16. PROBABILITY MODELLING: The Central Limit Theorem.
- Figure 5.17. PROBABILITY MODELLING: Racial Differences in IQ.