Formulae

Unit 1: Collection of Data

Petersen Capture-Recapture   (Higher only)

$$N = \frac{Mn}{m}$$

N = number in the population

M = size of first sample

n = size of second sample

m = number marked in second sample

Stratified Sampling

$$\text{Number selected in stratum} = \frac{\text{Stratum size}}{\text{Population size}} \times \text{sample size}$$

Unit 2: Processing, Representing and Analysing Data

Pie Chart: angle of sector

$$\text{Sector angle} = \frac{x}{\text{total}} \times 360°$$

x = frequency of sector

total = total frequency

Comparative Pie Charts   (Higher Only)

$$r_2 = r_1 \times \sqrt{\frac{F_1}{F_2}}$$

r = radius

F = frequency

Histograms

$$\text{Frequency density} = \frac{\text{frequency}}{\text{class width}}$$

Rearrange

$$\text{Frequency} = \text{frequency density} \times \text{class width}$$

Must remember as not provided in the exam.