The total likelihood is denoted by L(p).

Q.4.2.b. (cont)

$$L(p) = \prod_{i=1}^{10} p(n \text{ heads \& } 1 \text{ tail})$$

Q.4.2.c

Log likelihood is →

$$l(p) = \sum_{i=1}^{10} \log\left(C_{n_i}^{n_i+1} p^{n_i}(1-p)\right)$$

$$= \sum_{i=1}^{10} \left[\log C_{n_i}^{n_i+1} + n_i \log p + \log(1-p)\right]$$

$$= \sum_{i=1}^{10} \left[\log C_{n_i}^{n_i+1}\right] + \log p \sum_{i=1}^{10} n_i$$

$$+ 10 \log(1-p)$$