

LC 2017: PAPER 2

QUESTION 1 (25 MARKS)

Number of babies born in 2015 = 65 909

Number of girls born in 2015 = 32 290

Question 1 (a)

(i) Number of boys born in 2015 = $65\,909 - 32\,290 = 33\,619$

(ii) $P(\text{Boy}) = \frac{\text{Number of boys}}{\text{Number of babies}} = \frac{33\,619}{65\,909} = 0.51$

Question 1 (b)

(i) $P(\text{Boy, Boy, Boy}) = 0.51 \times 0.51 \times 0.51 = 0.1327$

(ii) $P(\text{Girl}) = 1 - 0.51 = 0.49$

$P(\text{Boy, Boy, Girl}) = 0.51 \times 0.51 \times 0.49 = 0.1274$

Question 1 (c)

(i) Table:

Day	Mon	Tues	Wed	Thu	Fri	Sat	Sun
Probability	0.14	0.16	0.15	0.18	0.15	0.12	0.1

(ii) Expected number of babies born on Tuesday = $1300 \times 0.16 = 208$
