

## **GCSE Biology A (Gateway)**

**J247/02** B4-B6 and B7 Foundation (Foundation Tier)

### **Question Set 13**

1 (a) The sex chromosomes determine the sex of a baby.

What are the sex chromosomes of a male and of a female?

Male XY

Female XX

[2]

(b) The data in the table shows the ratio of males to females in England and Wales.

	Ratio of males to females in England and Wales
At birth	105 males : 100 females
Average over the whole population	98 males : 100 females

(i) What percentage of babies are male at birth?

$$\text{Answer} = \frac{105}{105+100} \times 100 = \underline{\underline{51.2\%}}$$

% [1]

(ii) In a hospital 410 babies are born in a week.

Calculate how many of them are likely to be male.

$$\text{Answer} = \underline{\underline{210}} \quad 410 \times \frac{51.2}{100} = 209.92 \approx \underline{\underline{210}}$$

[1]

(iii) On average, men do not live as long as women.

How does the data in the table show this?

In the whole population there are more females even though more males are born than females because more males die reducing male population. [2]

**Total Marks for Question Set 13: 6**

---

**OCR**  
Oxford Cambridge and RSA

**Copyright Information**

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website ([www.ocr.org.uk](http://www.ocr.org.uk)) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge