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| **Constructing Two-Way Tables** |
| **(a)** | **(b)** | **(c)** |
| A teacher asked two of her classes, 7A and 7B whether they were left or right handed. In 7A, there were a total of 32 students and 11 of them were left-handed. In 7B there were 19 right-handed students. Across both classes, there was a total of 23 left-handed students.(a) Complete a two-way table to show this information. | A librarian surveyed 100 people of different ages to find out their preferred type of fiction – crime, romance or fantasy. Of the 36 under 40s who answered the survey, 11 preferred crime fiction. A total of 28 people preferred romance novels. Of the people who were aged 40 or over, 9 preferred romance and 22 preferred fantasy fiction.(a) Complete a two-way table to show this information. | A teacher recorded the mock exam grades received for A-level Mathematics by students in each of her two classes. There were two more students in class Y than in class X.Class X contained 28 students and received 11 B grades.Students in class Y receives twice as many A grades as those in class X.The total number of students who got grade C was 15, and 7 of these students were in class Y. (a) Complete a two-way table to show this information. |
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|  | Left | Right | Total |
| 7A |  |  |  |
| 7B |  |  |  |
| Total |  |  |  |

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| --- | --- | --- | --- | --- |
|  | Crime | Romance | Fantasy | Total |
| Under 40s |  |  |  |  |
| 40 or over |  |  |  |  |
| Total |  |  |  |  |

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| (b) A student is chosen at random. Find the probability that they are left-handed.(c) A right-handed student is chosen at random. Find the probability that they are in 7A. | (b) A person is chosen at random. Find the probability that they are under 40 and prefer either romance or fantasy fiction.(c) A person who prefers crime fiction is chosen at random. Find the probability that they are aged 40 or over. | (b) A member of class X is chosen at random. Find the probability that they received a grade B or a grade C.(c) All students that obtained a grade C will be required to re-sit their exam. If a student is chosen at random, what is the probability that they will not have to resit their exam? |