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| **Stratified Sampling – Red and Amber** The rule for stratified sampling is:$$Sample size × \frac{Stratum Size}{Total Population}$$Stratum is the group you are sampling from. (For example, female) |
| **Question 1**The table shows the number of girls in four different schools.Jenny wants to use a stratified sample of exactly 80 girls by school.Complete the calculations shown to find how many girls from each school Jenny should use. | School A: $80 × \frac{126}{461}$School B: $80 × \frac{82}{461}$School C: $80 × \frac{201}{461}$School D: $80 × \frac{52}{461}$ |
| **Question 2**The table shows the number of boys in four different schools.Adam wants to use a stratified sample of exactly 40 boys. Complete the calculations to find how many boys Adam should use. | School A: $40 × \frac{32}{132}$School B: $40 × \frac{43}{132}$School C: $40 × \frac{38}{132}$School D:  |
| **Question 3**The table shows the number of competitors in a competition by age group.The organisers want to conduct a survey and use a stratified sample of 50 people.Calculate how many people from each age group they need to sample. |  |
| **Question 4**This table shows the gender of students studying three languages at college.1. Calculate the total number of students at the college studying languages.

Jamie wants to conduct a survey at the college. He wants to take a sample of 50 students stratified by gender and by language studied. 1. Complete the calculations to find the size of each sample group.
 | Male studying German: $50 × \frac{45}{???}$Male studying French: $50 × \frac{52}{???}$Male studying Spanish: $50 × \frac{26}{???}$Female studying German: $50 × \frac{25}{???}$Female studying French: $50 × \frac{18}{???}$Female studying Spanish: $50 × \frac{62}{???}$ |
| **Question 5**A golf club is conducting a survey of its members.They want to take a sample of 90 stratified by both age and by gender.Calculate the size of each sample group.(Hint: There will be 8 groups) |  |
| **Question 6** The table shows the number of students studying a two year college course.Laura wants to sample 70 students, stratified by year group and gender.Calculate the size of each sample group. | Hint: There are 4 groups that will be sampled.  |
| **Stratified Sampling – Red and Amber** The rule for stratified sampling is:$$Sample size × \frac{Stratum Size}{Total Population}$$Stratum is the group you are sampling from. (For example, female) |
| **Question 1**School A – 80 x (126/461) = 22School B – 80 x (82/461) = 14School C – 80 x (201/461) = 35School D – 80 x (52/461) = 9 |  |
| **Question 2**School A – 40 x (32/132) = 10School B – 40 x (43/132) = 13School C – 40 x (38/132) = 11 (Actually rounds to 12, but should be rounded down to keep the sample size correct)School D – 40 x (19/132) = 6 |   |
| **Question 3**16 – 18 = 50 x (120/570) = 10(Actually rounds to 11, but should be rounded down to keep the sample size correct)19 – 24 = 50 x (250/570) = 2225+ = 50 x (200/570) = 18 |  |
| **Question 4**Male German = 50 x (45/258) = 9Male French = 50 x(52/258) = 10Male Spanish = 50 x (26/258) = 5Female German = 50 x (25/258) = 5Female French = 50 x (48/258) = 9Female Spanish = 50 x (62/258) = 12  |  |
| **Question 5**Male under 18 = 90 x (29/454) = 6Male 18 to 30 = 90 x (82/454) = 16 Male 31 to 50 = 90 x (147/454) = 29Male over 50 = 90 x (91/454) = 18Female under 18 = 90 x (10/454) = 2Female 18 to 30 = 90 x (21/454) = 4Female 31 to 50 = 90 x (45/454) = 9Female over 50 = 90 x (29/454) = 6 |  |
| **Question 6**Male first year = 70 x (399/1451) = 19Male second year = 70 x (252/1451) = 12Female first year = 70 x (602/1451) = 29Female second year = 70 x (198/1451) = 10 |   |