Stratified sampling

Miss Parnham

Stratified sampling

1. The numbers of workers in a biscuit factory are shown in the table.

	Assembly Line	Admin	Warehouse
Population size	230	20	50
Sample size			

If a stratified sample of 30 is taken, complete the table to show the sample size of each group.

2. There are 400 pupils in a school. A stratified sample is taken.
If the sample size for year 11 is 15, what are the sample sizes for the other year groups?

Year group	7	8	9	10	11
Number in population	80	95	90	60	75
Number in sample					15

What is the total sample size?

Stratified sampling

3. Eva is carrying out a survey at her school using a stratified sample of 50 She has calculated the size of each of the samples to the nearest integer.

Year group	7	8	9	10	11
Population	128	119	97	84	93
Sample	12	11	9	8	9

What has Eva overlooked?
What improvement would you make?

4. The table has information about students at a language school.

	French	Spanish	Italian
Number in population	186	152	112
Number in sample			

Dora takes a stratified sample of 40 Work out the number from each group that should be in her sample.

Answers

Stratified sampling

1. The numbers of workers in a biscuit factory are shown in the table.

	Assembly Line	Admin	Warehouse
Population size	230	20	50
Sample size	23	2	5

If a stratified sample of 30 is taken, complete the table to show the sample size of each group.

2. There are 400 pupils in a school. A stratified sample is taken.
If the sample size for year 11 is 15, what are the sample sizes for the other year groups?

Year group	7	8	9	10	11
Number in population	80	95	90	60	75
Number in sample	16	19	18	12	15

What is the total sample size? 80

Stratified sampling

3. Eva is carrying out a survey at her school using a stratified sample of 50 She has calculated the size of each of the samples to the nearest integer.

Year group	7	8	9	10	11
Population	128	119	97	84	93
Sample	12	~~11~~ 12	9	8	9
	12.28	11.42	9.31	8.06	8.93

What has Eva overlooked?

Rounding means the samples sum to 49

What improvement would you make?

Look at accurate answers and round up the number with the greatest decimal part below 0.5

4. The table has information about students at a language school.

	French	Spanish	Italian
Number in population	186	152	112
Number in sample	17	13	10

Dora takes a stratified sample of 40 Work out the number from each group that should be in her sample.