POPULATION

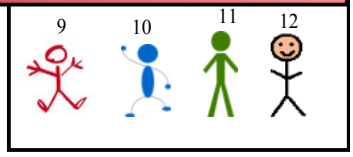
All individuals who belong to a group being studied.

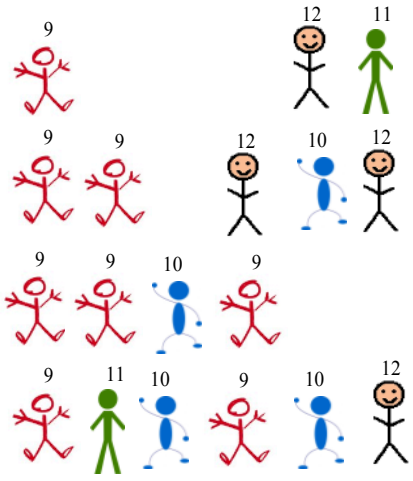
Sample

A group of individuals selected from a population.

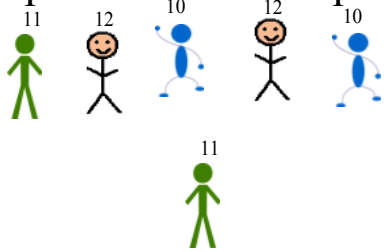
Examples

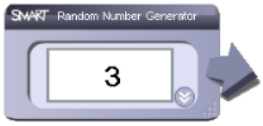
out of a population of 24 find a sample of 6 students





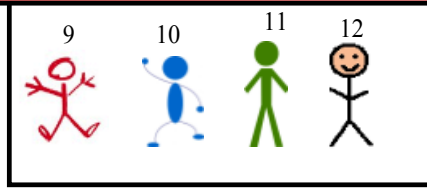
Simple Random Sample

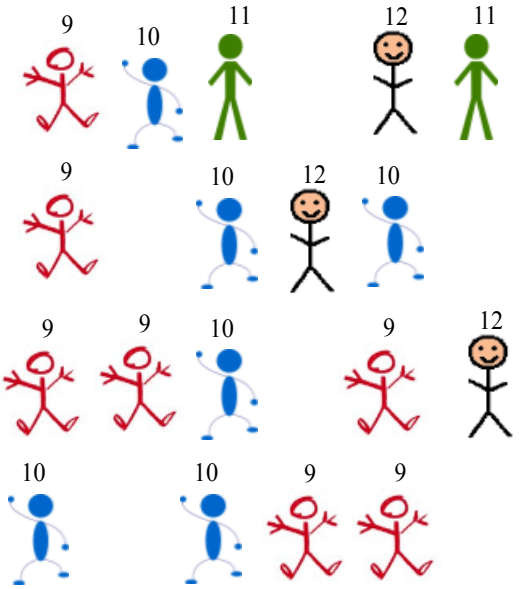




Examples

out of a population of 24 find a sample of 6 students





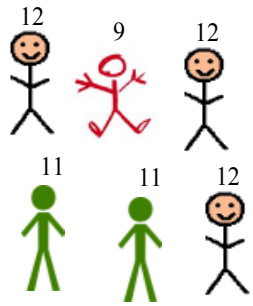
Systematic Random Sample

interval = $\frac{\text{population}}{\text{sample}}$

$= \frac{24}{6}$

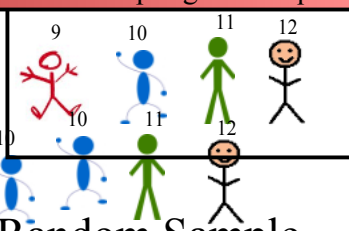
$= 4$

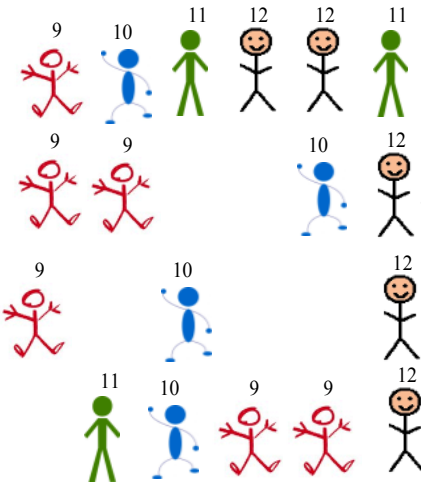
every 4th student is in my sample.



Examples

out of a population of 24 find a sample of 6 students





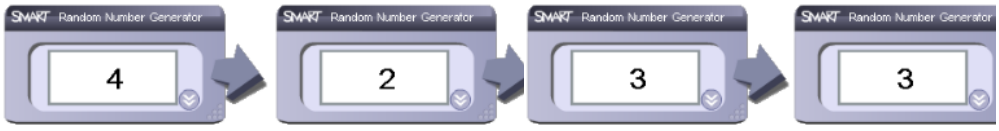
Stratified Random Sample

Grade 9: $\frac{8}{24} = 33\%$ — sample: $.33 \times 6 = 2$

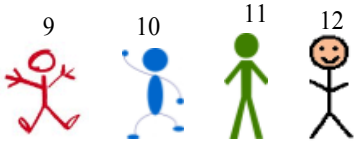
Grade 10: $\frac{6}{24} = 25\%$ — $.25 \times 6 = 2$

Gr. 11: $\frac{4}{24} = 16.7\%$ — $.167 \times 6 = 1$

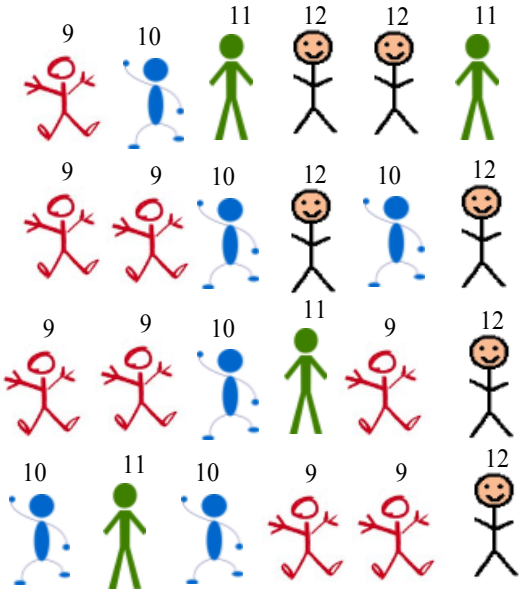
Gr. 12: $\frac{6}{24} = 25\%$ — $.25 \times 6 = 1$



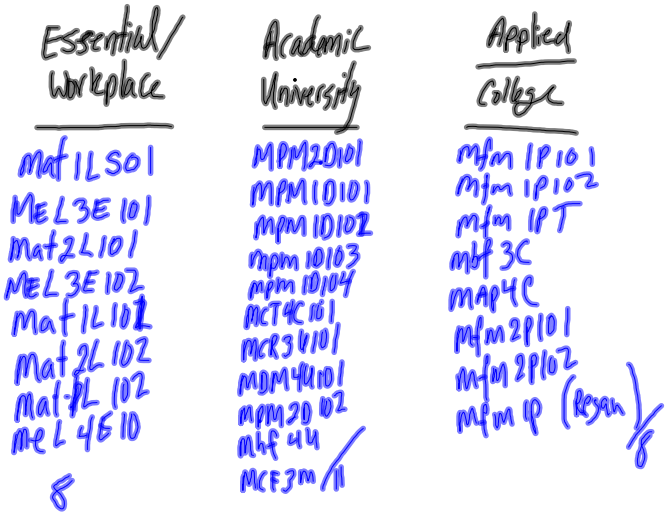
Examples



out of a population of 24 find a sample of 6 students



Cluster Sample



Use Stratified Random sampling to choose groups. Then Everyone from the group is chosen.

Homework
pg. 117 #1-9
&
Download the 500Student.ftm file

Click on the Sample button to sample 10 students at a time and build the sampled graphs. How long (how many students) does it take for you to sample enough so that the sampled graphs start to resemble the full graphs.