

**Before we begin, are there any questions from last day's work?**

## Today's Learning Goal(s):

By the end of the class, I will be able to:

- a) calculate the correct proportions for a stratified random sample

## 3.1 Sampling Techniques (cont'd)

Date: Mar. 9/17

## Ex. 1 Creating a Stratified Sample

The table shows the number of students in each grade at ABC Middle School.

The principal wishes to survey 120 of the students.

Describe how you would design a stratified random sample to select the 120 students.

Grade	7	8	9	Total
Number of Students	165	245	190	600

👉 **Note:** The sample size must be proportional to the population.

ex.) most Gr.8s in the sample

👉 **Total number of students** =  $165 + 245 + 190$

👉 = 600

$$\begin{array}{r} \text{Gr.7} \\ \frac{165}{600} \times 120 \\ = 33 \end{array}$$

$$\begin{array}{r} \text{Gr.8} \\ \frac{245}{600} \times 120 \\ = 49 \end{array}$$

$$\begin{array}{r} \text{Gr.9} \\ \frac{190}{600} \times 120 \\ = 38 \end{array}$$

you must **RANDOMLY** select 33 Gr.7s, 49 Gr.8s, and 38 Gr.9s.

Check

$$\begin{array}{r} 33 \\ 49 \\ 38 \\ \hline 120 \end{array}$$

Today's Entertainment *Go back and redo #3 (stratified sample) from yesterday's worksheet.*

p. 108 #7, 8, 9 Note: For #9, use the table provided to determine the accurate number of students per grade. (Alice estimated.)

pp. 106-107 #1-4