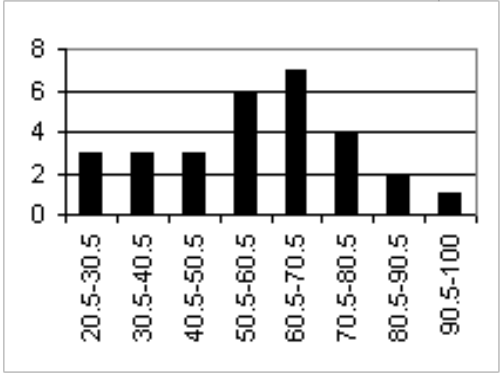
Types of Distributions of Data

Learning Goal

Ex. Two classes have written the same test. Here are the distributions of their test scores:

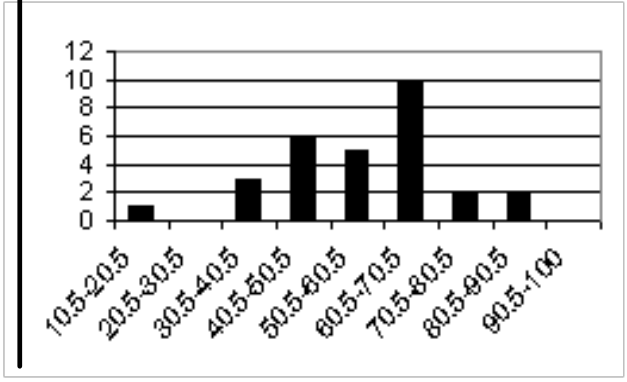
Class 1

Grades (x)	Frequency (f)
20.5-30.5	3
30.5-40.5	3
40.5-50.5	3
50.5-60.5	6
60.5-70.5	7
70.5-80.5	4
80.5-90.5	2
90.5-100	1



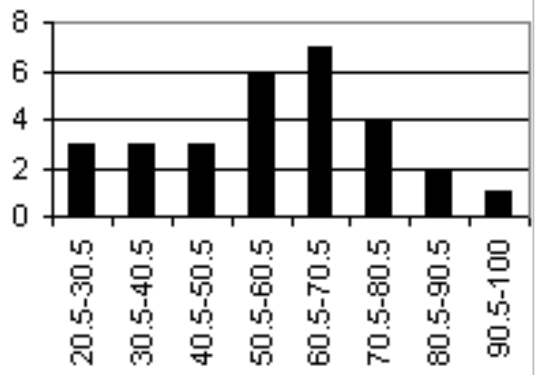
Class 2

Grades (x)	Frequency (f)
10.5-20.5	1
20.5-30.5	0
30.5-40.5	3
40.5-50.5	6
50.5-60.5	5
60.5-70.5	10
70.5-80.5	2
80.5-90.5	2
90.5-100	0

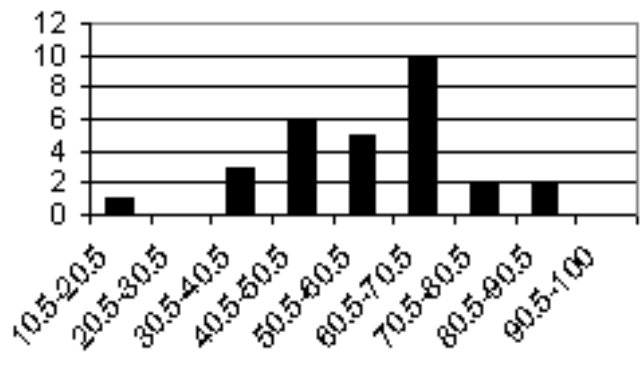


Comparing both Distributions: 'Spread' as a Measure of Variability

Class 1



Class 2

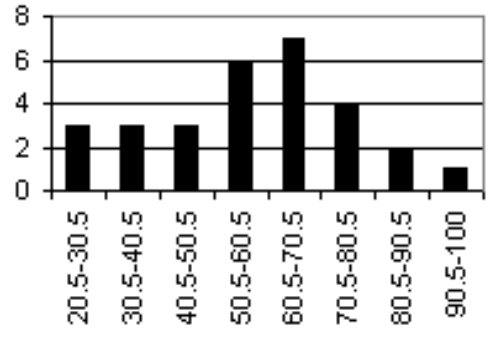


Which of the classes test scores seems to show a greater degree of *spread*? Why?

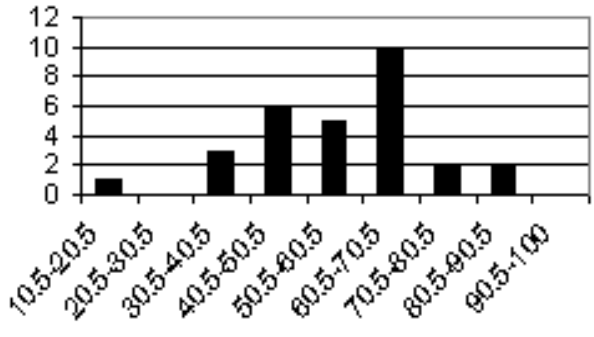
Comparing Distributions: Balancing Distributions

Compare the 'shape' of both distributions. If you had to balance these distributions, where would you draw in a "balancing point?"

Class 1:



Class 2:



What name is given to the "balancing point"?

Pull

Class 1:

26	63	73	82	32	73
35	63	56	87	40	51
55	43	53	70	43	92
64	75	46	64	23	67
52	28	76	56	67	

mean, $\overline{x}$ = 58.7%

Recall:

$\overline{X}$ is the sum of all data divided by the number of data in a set

Class 2:

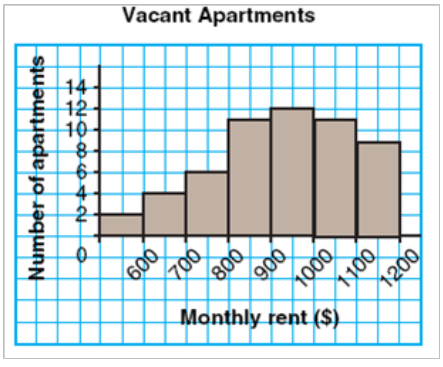
66	62	14	41	45	89
59	43	67	37	31	65
50	43	53	57	54	84
68	74	61	54	34	70
45	64	76	70	65	

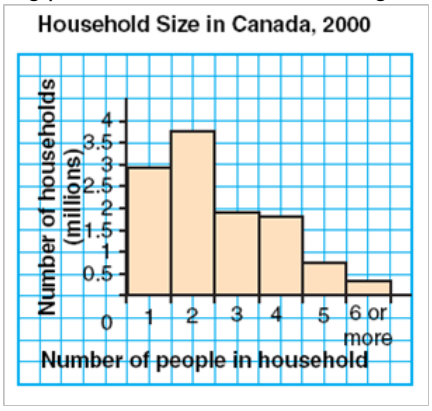
mean, $\overline{x}$ = 57.8%

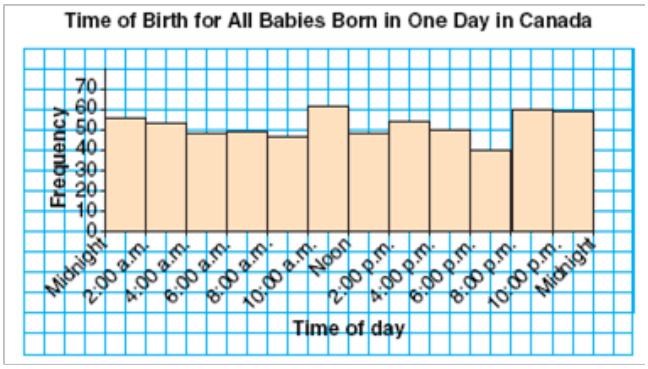
Based on these calculations, is the "balancing point" placed appropriately in the distribu on the previous slide? If not, make a correction. Also label the mode on each distributio

Location, Location...

Label the approximate position of the "balancing point" on each of the following distributions.







Exercise: Defining Distribution Types

The distributions you just 'balanced' have specific names and descriptions.

1-Use p152 of your textbook to label your balanced distributions.

2-Define each of the distribution types:

- *normal*, *skewed* (left vs right), and *bimodal*

3-Answer p153-154, #3, 5, and 6 (textbook)

Attachments

Creating Frequency Distribution Tables & Histograms_Example.docx