

Alg 1 0.13

Represent sets of data using different visual displays

frequency table

bar graph
horizontal
vertical

} categories

~~cumulative frequency~~

histogram

line graph

stem-and-leaf plot

circle graph (pie chart)

box-and-whisker plot (boxplot)

test scores

patterns temp.

organize proportion of all 100%

spread test scores



12 15 18 18 (20) 22 22 31 31 (44) 46

Stem & Leaf plot

50 53 54 55 59 61 66 67

12 15 22 31 18 44 53 66 54 22 31 61 50 46 67
55 18 20 59

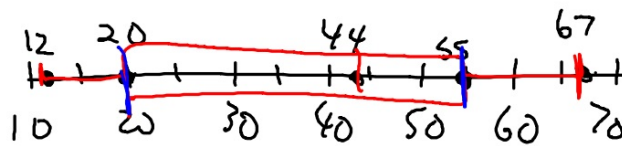
Always need key

→ 1	2 5 8 8
2	2 20
3	1 1
4	4 6
5	3 4 0 5 9
6	6 1 7

min 12
Q₁ 20
med 44
Q₃ 55
max 67

$$35 \cdot 1.5 = 52.5$$

$$\frac{1}{2} = 12.5$$



107.5

IN-CLASS ACTIVITIES

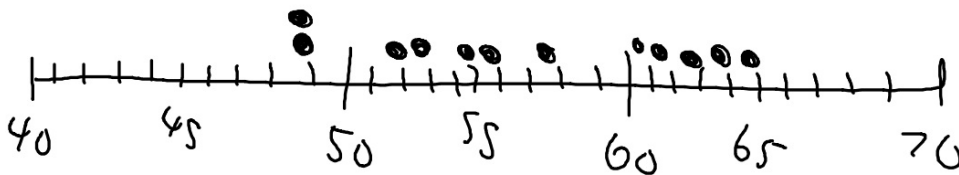
Activity 5-1: City Temperatures

The following table reports the average monthly temperatures for San Francisco, California, and for Raleigh, North Carolina. Dotplots of these twelve temperatures for each city appear below.

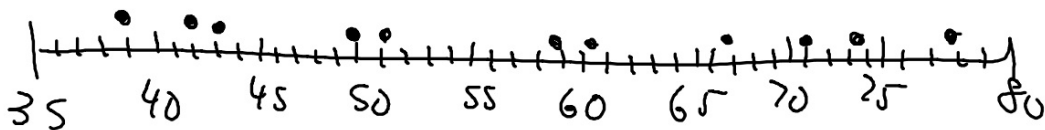
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Raleigh	39	42	50	59	67	74	78	77	71	60	51	43
San Francisco	49	52	53	56	58	62	63	64	65	61	55	49

Average Temp mode ↓

SF



R

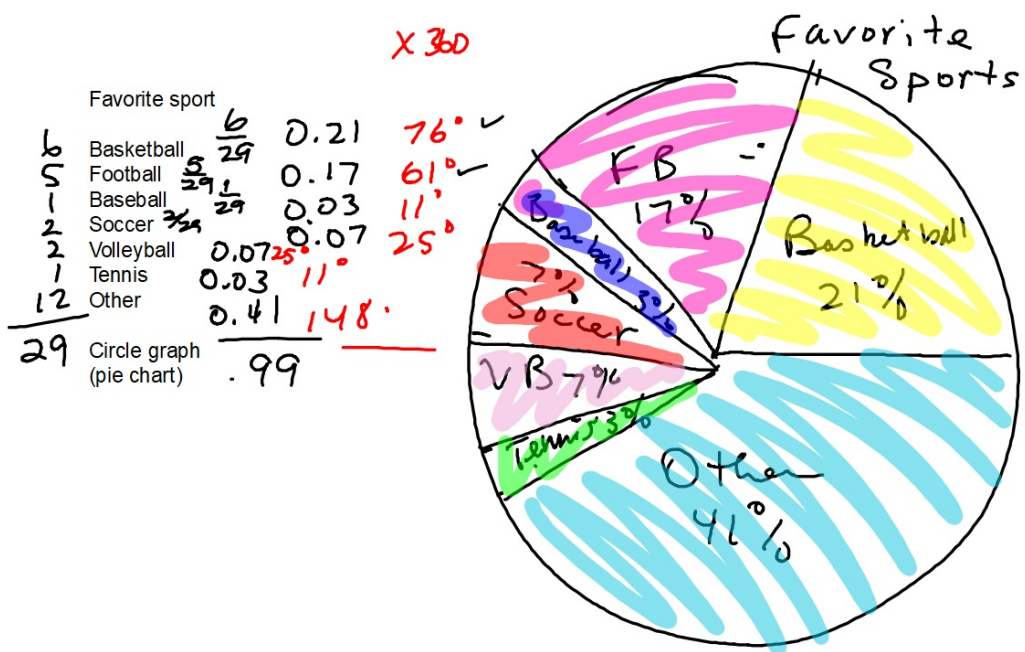


Double boxplot

Activity 5-21: Limitations of Boxplots

Consider the hypothetical exam scores presented below for three classes of students. Dotplots of the distributions are also presented.

class A:	50	50	50	63	70	70	70	71	71	72	72	79	91	91	92
class B:	50	54	59	63	65	68	69	71	73	74	76	79	83	88	92
class C:	50	61	62	63	63	64	66	71	77	77	77	79	80	80	92



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