

# Handout - MINITAB (annotated)

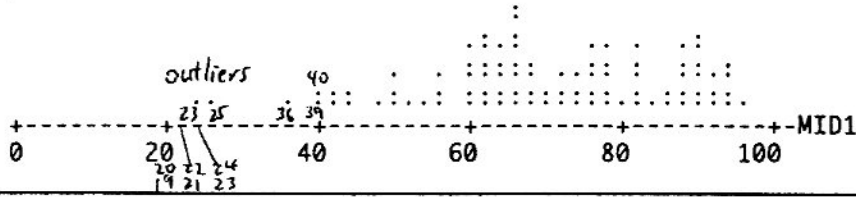
Math 119

## Dotplots

MTB > Describe 'MID1'

	# students N	MEAN	MEDIAN	trimmed TRMEAN	STDEV	ignore for now SEMEAN
MID1	92	69.36	68.50	70.12	16.38	1.71
MID1	MIN	MAX	Q1	Q3		
	23.00	96.00	60.25	82.00		

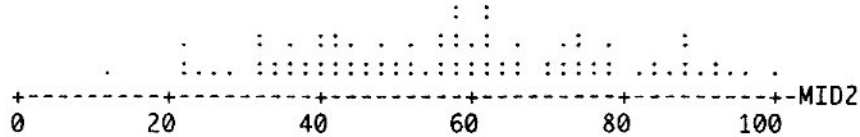
MTB > DotPlot 'MID1';  
SUBC> Start 0 100;  
SUBC> Increment 20.



MTB > Describe 'MID2'

	N	MEAN	MEDIAN	TRMEAN	STDEV	SEMEAN
MID2	92	56.87	57.00	56.83	20.22	2.11
MID2	MIN	MAX	Q1	Q3		
	12.00	99.00	41.00	72.75		

MTB > DotPlot 'MID2';  
SUBC> Start 0 100;  
SUBC> Increment 20.



Stem-and-Leaf Plot

Stem-and-leaf of MID1

N = 92

Leaf Unit = 1.0

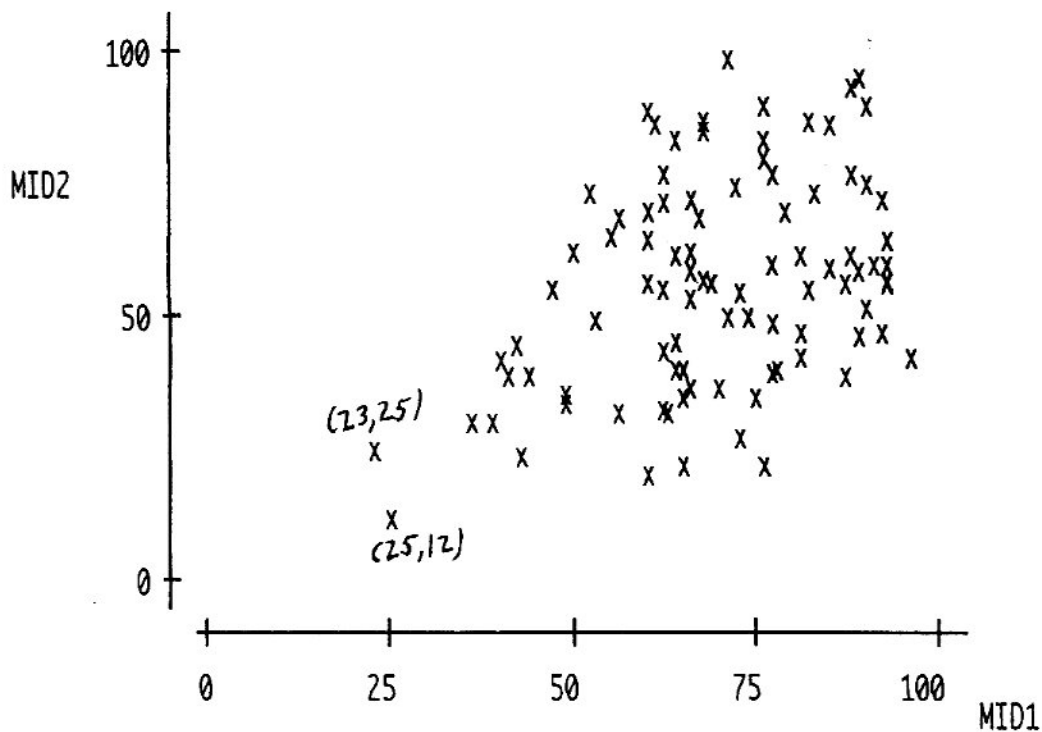
You don't have to do this.

	1	2 3
	2	2 5
	2	3
	4	3 69
	9	4 01234
12 people: score ≤ 49	← (12)	4 799
	15	5 023
	18	5 566
	34	6 0000012222234444
	(13)	6 5556666678889
	45	7 0112334
	38	7 56666777789
	27	8 111223
	21	8 5577888999
11 people: score ≥ 90	← (11)	9 0001223333
	1	9 6

← Leaves 0-4 } If we don't split like this,  
← Leaves 5-9 } then these will be a mess.



## Scatter Plot

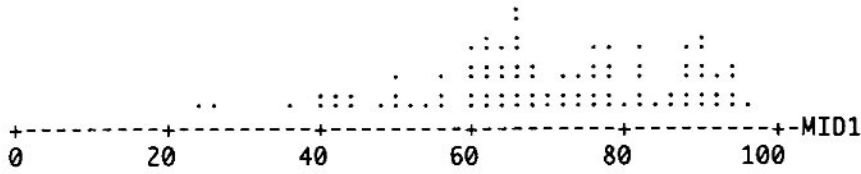


Note: The material covered on MID1 was very different from the material covered on MID2.

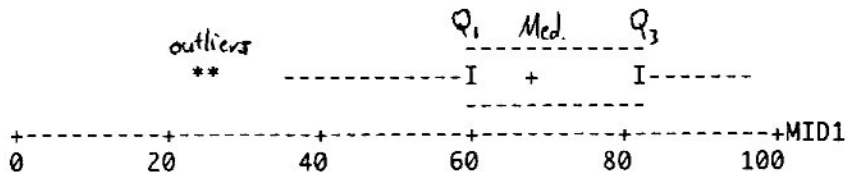
This explains why the correlation (later  $\rho$ ) is low:  
 $\rho = 0.4$ .

# Boxplots

```
MTB > DotPlot 'MID1';
SUBC> Start 0 100;
SUBC> Increment 20.
```



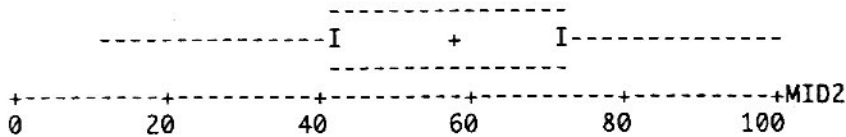
```
MTB > BoxPlot 'MID1';
SUBC> Start 0 100;
SUBC> Increment 20.
```



```
MTB > Describe 'MID1'.
```

	N	MEAN	MEDIAN	TRMEAN	STDEV	SEMEAN
MID1	92	69.36	68.50	70.12	16.38	1.71
MID1	MIN	MAX	Q1	Q3		
	23.00	96.00	60.25	82.00		

```
MTB > BoxPlot 'MID2';
SUBC> Start 0 100;
SUBC> Increment 20.
```



```
MTB > Describe 'MID2'.
```

	N	MEAN	MEDIAN	TRMEAN	STDEV	SEMEAN
MID2	92	56.87	57.00	56.83	20.22	2.11
MID2	MIN	MAX	Q1	Q3		
	12.00	99.00	41.00	72.75		