

BIVARIATE ANALYSIS AND DATA PRESENTATION

THE WARM-UP: EXERCISES

Example 2, completion:

Example 2	
Values	4 1 12 10 7 5 9 6
Group size	8
Half of group size	4
Values in order	1 4 5 6 7 9 10 12 4 values 4 values
Minimum	1
Maximum	12
Median	$(6 + 7) / 2 = 6.5$

Example 2, part a		Example 2, part b	
Values	1 4 5 6	Values	7 9 10 12
Group size	4	Group size	4
Half of group size	2	Half of group size	2
Median	$(4 + 5) / 2 = 4.5$	Median	$(9 + 10) / 2 = 9.5$

Five-number group: min = 1; Q1 = 4.5; Q2 = 6.5; Q3 = 9.5; max = 12

Example 3:

Find the five-number group for the following group of values:

Example 3	
Values	15 2 56 23 16 45 30 36 22 41 8 53 27 44 31
Group size	15
Half of group size	7, rounded from 7.5
Values in order	2 8 15 16 22 23 27 30 31 36 41 44 45 53 56 *-----7-----* *-----7-----*
Minimum	2
Maximum	56
Median	30

Example 3, part a		Example 3, part b	
Values	2 8 15 16 22 23 27 *---3--* *---3---*	Values	31 36 41 44 45 53 56 *----3----* *----3----*
Group size	7	Group size	7
Half of group size	3, from 3.5	Half of group size	3, from 3.5
Median	16	Median	44

Five-number group:

Min = 2; Q1 = 16; Q2 = 30; Q3 = 44; Max = 56