

CIMT Statistics p72 Example: Back-to-Back Stem and Leaf Chart, Fences and Boxplot

English		Maths
		0 5
		1
		2
7		3 1 7
9 1		4 3 3
7 5		5 7
5 5 4 2		6 2 3
3 0		7 8
		8 0
		9 1

Key 4 | 3 = 43

$maths:=\{5,31,37,43,43,57,62,63,78,80,91\}$ $\{5,31,37,43,43,57,62,63,78,80,91\}$														
FiveNumSummary <i>maths</i>		Done												
<i>stat.results</i>	<table><tr><th>"Title"</th><th>"Five-Number Summary"</th></tr><tr><td>"MinX"</td><td>5.</td></tr><tr><td>"Q₁X"</td><td>37.</td></tr><tr><td>"MedianX"</td><td>57.</td></tr><tr><td>"Q₃X"</td><td>78.</td></tr><tr><td>"MaxX"</td><td>91.</td></tr></table>	"Title"	"Five-Number Summary"	"MinX"	5.	"Q ₁ X"	37.	"MedianX"	57.	"Q ₃ X"	78.	"MaxX"	91.	
"Title"	"Five-Number Summary"													
"MinX"	5.													
"Q ₁ X"	37.													
"MedianX"	57.													
"Q ₃ X"	78.													
"MaxX"	91.													
$lower_fence:=stat.Q_1X-1.5\cdot(stat.Q_3X-stat.Q_1X)$		-24.5												
$upper_fence:=stat.Q_3X+1.5\cdot(stat.Q_3X-stat.Q_1X)$		139.5												

$english := \{37, 41, 49, 55, 57, 62, 64, 65, 65, 70, 73\}$ $\{37, 41, 49, 55, 57, 62, 64, 65, 65, 70, 73\}$														
FiveNumSummary <i>english</i>		Done												
<i>stat.results</i>	<table><tr><th>"Title"</th><th>"Five-Number Summary"</th></tr><tr><td>"MinX"</td><td>37.</td></tr><tr><td>"Q₁X"</td><td>49.</td></tr><tr><td>"MedianX"</td><td>62.</td></tr><tr><td>"Q₃X"</td><td>65.</td></tr><tr><td>"MaxX"</td><td>73.</td></tr></table>	"Title"	"Five-Number Summary"	"MinX"	37.	"Q ₁ X"	49.	"MedianX"	62.	"Q ₃ X"	65.	"MaxX"	73.	
"Title"	"Five-Number Summary"													
"MinX"	37.													
"Q ₁ X"	49.													
"MedianX"	62.													
"Q ₃ X"	65.													
"MaxX"	73.													
$lower_fence := stat.Q_1X - 1.5 \cdot (stat.Q_3X - stat.Q_1X)$		25.												
$upper_fence := stat.Q_3X + 1.5 \cdot (stat.Q_3X - stat.Q_1X)$		89.												

No outliers for either data set, as neither has any individual values that exceed the fences.

