

LINE: DO NOT CROSS POLICE LINE: DO NOT CROSS POLICE LINE: DO NOT CROSS POLICE LINE: D

You have arrived to your Stats lesson to discover a murder has taken place!

Solve the Statistical problems using the skills we have been practicing this year to decipher the clues left by the murderer.

After you have worked out each clue, use it to eliminate teachers from the suspect list and find the next clue.

Can you solve the murder before the lesson is over?

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Suspect List

Teacher	Subject	Sex	Right/Left-Handed	Free Period
Mr Wills	Maths	M	Right	2
Mrs Jassal	English	F	Left	3
Mr Armstrong	P.E	M	Right	3
Mr Patel	History	M	Right	2
Miss Nowak	Maths	F	Left	3
Mrs Crisp	Statistics	F	Left	2
Ms Wilson	English	F	Left	2
Mr Guest	Maths	M	Left	2
Mr Dogaru	Maths	M	Right	3
Miss Trier	Art	F	Right	3
Miss Rogers	P.E	F	Right	2
Mrs Halford	Maths	F	Right	3
Mr Brownhill	Statistics	M	Left	3
Mr Hartlebury	English	M	Left	3
Mr Plant	French	M	Left	2
Miss Goodyear	Maths	F	Right	2

Murderer: Mr Guest

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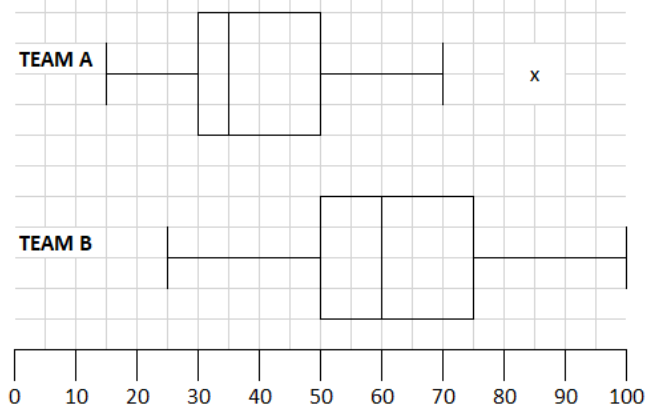
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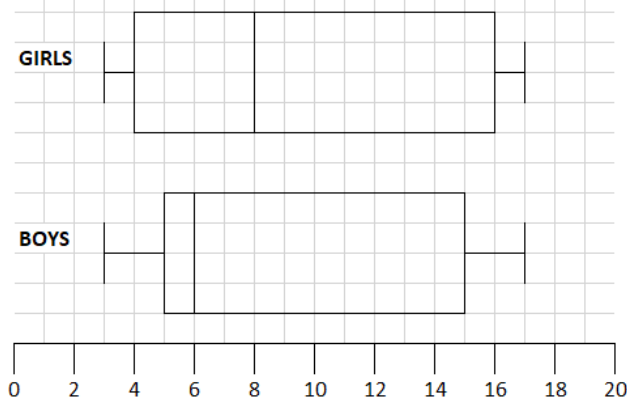
Work out the missing words from these comparisons for box plots.

The letter highlighted is the letter for your clue.

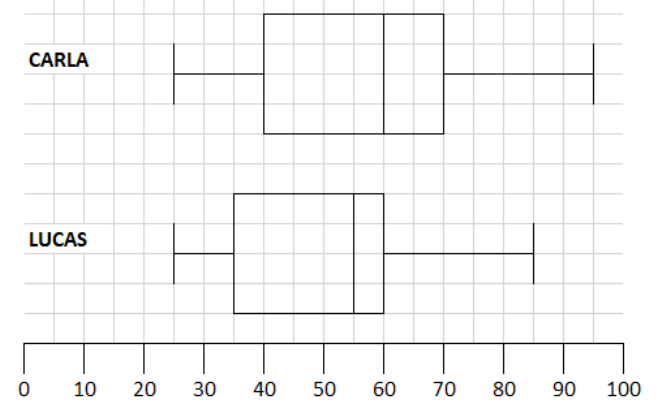
Compare the data for the number of baskets scored by Team A and Team B



Compare the data for the number of points earned by the girls and boys



Compare the data for the number of detentions earned by Carla and Lucas



S: The range for **T E A M** B is wider **T H A N** Team A

A: The **M E D I A N** for Team B is higher than Team A

Sk: Team A and Team B have positive **S K E W**

I: On average, Team B score more baskets

A: Team A has an **O U T L I E R**

S: Boys have a **S M A L L E R** inter **Q U A R T I L E** range

A: Girls **H A V E** a **H I G H E R** **M E D I A N**

Sk: **G I R L S** and **B O Y S** have **P O S I T I V E** skew

I: On average, Girls score more **P O I N T S**

A: No **O U T L I E R S**

S: Carla has a **W I D E R** range than **L U C A S**

A: **C A R L A** has **A** higher median than **L U C A S**

Sk: **C A R L A** and **L U C A S** have negative skew

I: **L U C A S** has a less **V A R I E D** number of **D E T E N T I O N S**

A: **N O** **O U T L I E R S**

CLUE: the killer dropped a calculator (only staff who would need a calculator [maths and stats])

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For each pair of data, rank them ready for calculating SRCC.

Use the codebreaker to find the letter represented by each shaded rank.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13

X	12	4	11	6	7	13	5	10	14	5	8	14	9
Rank X	10	1	9	4	5	11	2.5	8	12.5	2.5	6	12.5	7
Y	21	24	22	25	23	24	17	26	17	16	19	20	18
Rank Y	7	10.5	8	12	6	10.5	2.5	13	2.5	1	5	6	4

A	29	27	49	25	48	24	32	45	10	38	38	16	16
Rank A	7	6	13	5	12	4	8	11	1	9.5	9.5	2.5	2.5
B	70	75	35	62	66	58	39	39	30	45	49	59	56
Rank B	12	13	2	10	11	8	3.5	3.5	1	5	6	9	7

M	26	6	22	9	6	2	16	15	18	12	26	20	10
Rank M	12.5	2.5	11	4	2.5	1	8	7	9	6	12.5	10	5
F	9	11	29	13	9	5	15	23	19	13	27	26	13
Rank F	2.5	4	13	6	2.5	1	8	10	9	6	12	11	6

A	15	20	19	26	20	28	25	25	26	10	10	12	15
Rank A	4.5	7.5	6	11.5	7.5	13	9.5	9.5	11.5	1.5	1.5	3	4.5
B	12	15	6	16	7	12	17	10	9	1	2	3	4
Rank B	9.5	11	5	12	6	9.5	13	8	7	1	2	3	4

A	20	33	21	34	22	32	30	23	29	24	28	25	31
Rank A	1	12	2	13	3	11	9	4	8	5	7	6	10
B	25	14	26	28	29	15	16	23	19	22	25	21	18
Rank B	9.5	1	11	12	13	2	3	8	5	7	9.5	6	4

CLUE: they used green yellow scissors (only staff who are left-handed are suspects)

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