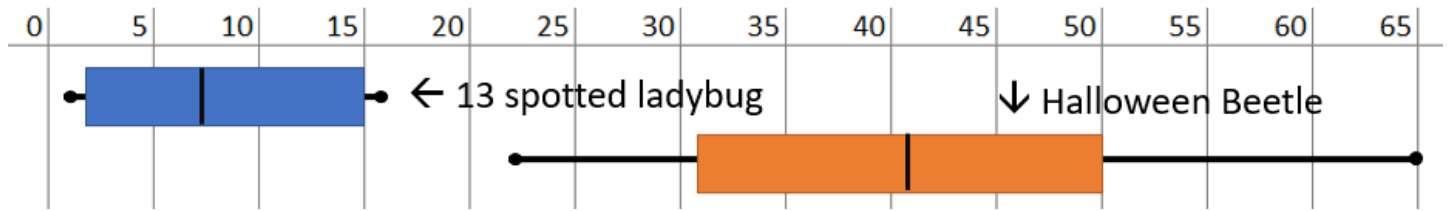


One Variable Data Management

2.2

Name:

1. ● Look at this box and whisker graph. It is about the number of ladybugs found in a large garden over a series of days. The data that was used to make the graph is found below it. Answer the questions.



Position	1 - min	2	3	4	5 - Q1	6	7	8	9 - med	10	11	12	13 - Q3	14	15	16	17 - max
13 spot	1	1	2	2	2	2	3	6	7	12	14	15	15	15	16	16	16
Halloween	23	25	27	29	31	35	36	38	41	46	49	49	50	55	57	60	65

The 13-spotted Ladybug is native to Ontario. They winter outside.



The Halloween Ladybug is not native to Ontario. They winter inside.



- What is the minimum number of 13-spotted ladybugs found?
- What is the Q3 value of the Halloween beetle?
- What is the IQR for the 13-spotted ladybug?
- What is the IQR for the Halloween beetle?
- What is the median count of the Halloween beetle?

- (f) Will the homeowner have a problem with ladybugs in their house in the fall? Explain.

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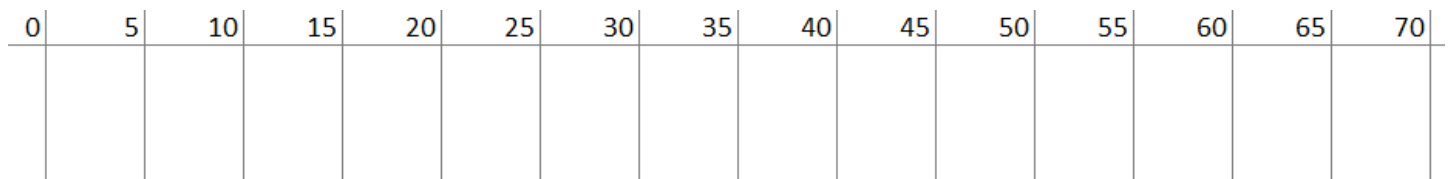
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2. ✓ Make a box and whisker graph for this data about the sizes of trout caught in lake Opeongo on August 23, 2022 in Algonquin Park.

Position	1 - min	2	3	4	5 - Q1	6	7	8	9 - med	10	11	12	13 - Q3	14	15	16	17 - max
Fish size (cm)	25	27	29	33	37	38	39	42	44	46	48	49	50	53	56	58	60

- (a) Use the number line to draw your Box and Whisker chart:



- (b) What is the IQR for the fish sizes on Lake Opeongo?

- (c) Canoe Lake's IQR is 35-43. Which lake has healthier fish?

3. ☺ Make a box and whisker graph for this data. It is about some insect samples collected over a period of days on Canisbay Lake. Then, fill in the calculations below.

0	2	4	6	8	10	12	14	16	18	20	22	24	26	28

Position	1 - min	2	3	4 - Q1	5	6	7 - med	8	9	10 - Q3	11	12	13 - max
Stonefly Larvae	0	1	1	2	2	3	3	3	4	4	4	5	5
Midge Larvae	9	10	11	12	14	15	17	19	20	22	22	25	26

(a) Stonefly Larvae Calculations:

Min	
Q1	
Median	
Q3	
Max	
IQR	

Stoneflies cannot live in warm or polluted water.

(b) Midge Larvae Calculations:

Min	
Q1	
Median	
Q3	
Max	
IQR	

Midge Larvae can live in oxygen poor or polluted water.

(c) What conclusions can you draw about the lake where these bugs were collected?

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4. ☺☺ Make the indicated calculations for each data set.

Position	1	2	3	4	5	6	7	8	9
Year	1968	1964	1969	1970	1967	1971	1965	1966	1972
Ice Off Date	14-Apr	27-Apr	30-Apr	1-May	1-May	6-May	10-May	14-May	15-May
Days Aft Jan 1	103	116	119	120	120	125	129	133	134

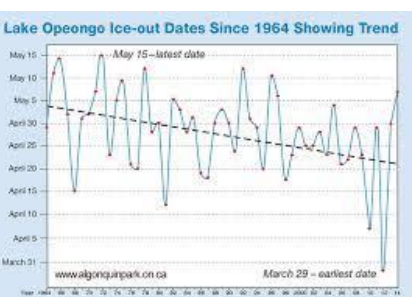
Position	1	2	3	4	5	6	7	8	9
Year	2021	2017	2013	2020	2015	2016	2014	2018	2019
Ice Off Date	10-Apr	25-Apr	30-Apr	30-Apr	1-May	1-May	7-May	10-May	10-May
Days Aft Jan 1	99	114	119	119	120	120	126	129	129

(a) 1964-1972 (Days Aft Jan 1):

Min	
Q1	
Median	
Q3	
Max	
IQR	
Average	

(b) 2012-2020 (Days Aft Jan 1):

Min	
Q1	
Median	
Q3	
Max	
IQR	
Average	



(c) What conclusions can you draw from the changes in ice out dates?

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